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ABHYAAS MAINS

सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2219)

निर्धारित समय: **तीन घंटे**
Time Allowed: ***Three Hours***

अधिकतम अंक: **250**
Maximum Marks: ***250***

सामान्य अनुदेश

इस प्रश्न-सह-उत्तर (क्यू.सी.ए.) पुस्तिका में 55+1 पृष्ठ हैं। प्रश्न-पत्र, क्यू.सी.ए. पुस्तिका के अंत में संलग्न है, जो अलग (वियोज्य) किया जा सकता है और उम्मीदवार परीक्षा के उपरांत अपने साथ ले जा सकते हैं।

रफ कार्य के लिए, इस पुस्तिका के अंत में खाली पृष्ठ दिया गया है।

पुस्तिका प्राप्त होने पर, कृपया यह जांच कर लें कि इस क्यू.सी.ए. पुस्तिका में कोई कमी न हो, फटा हुआ पृष्ठ न हो अथवा कोई पृष्ठ गायब न हो इत्यादि। यदि ऐसा हो, तो इसके बदले नई क्यू.सी.ए. पुस्तिका प्राप्त कर लें।

General Instructions

This Question-Cum-Answer (QCA) Booklet contains 55+1 pages. Question Paper in detachable form is available at the end of the QCA Booklet which can be taken away by the candidate after examination.

For rough work, blank page has been provided at the end of this Booklet.

On receipt of the Booklet, please check that this QCA Booklet does not have any shortcomings, torn or missing pages etc. If, so, get it replaced with a fresh QCA Booklet.

(उम्मीदवार द्वारा भरा जाएगा/To be filled by the Candidate)

पंजीकरण सं./Registration No. : 1297803

अभ्यर्थी का नाम/Name of Student : Anupriya Sakya

माध्यम: हिंदी/अंग्रेजी
Medium: Hindi/English

English

तारीख
Date

28th - August - 2022

सामान्य अध्ययन (प्रश्न पत्र-III)
GENERAL STUDIES (Paper III)

केंद्र
Centre RPA College - II

निरीक्षक के हस्ताक्षर
Invigilator's Signature

	महत्वपूर्ण अनुदेश	Important Instructions
	उम्मीदवारों को नीचे उल्लिखित निर्देश सावधानी से पढ़ लेने चाहिए। किसी भी निर्देश का उल्लंघन करने पर उम्मीदवारों को मिलने वाले अंकों में कटौती, उम्मीदवारी रद्द या आयोग के परवर्ती परीक्षाओं के लिए वर्जित करने इत्यादि के रूप में दण्डित किया जा सकता है।	**Candidates should read the undermentioned instructions carefully. Violation of any of the following instructions may entail penalty in the form of deduction of marks, cancellation of candidature, debarment from further Examination of the Commission etc.**
1	(क) अपना पंजीकरण सं. एवं अन्य विवरण केवल प्रश्न-सह-उत्तर पुस्तिका (क्यू.सी.ए.) में उम्मीदवार के लिए निर्धारित स्थान पर ही लिखें। (ख) इस पुस्तिका में अन्यत्र कहीं भी अपना नाम, पंजीकरण सं., मोबाइल नं., पता अथवा प्रश्न-सह-उत्तर पुस्तिका (क्यू.सी.ए.) संख्या न लिखें जिससे आपकी पहचान का खुलासा हो।	(a) Write your Registration Number and other details only in the space provided in the Question-Cum-Answer (QCA) Booklet for candidates. (b) Do not disclose your identity in any manner such as, by writing your Name, Registration number, Mobile number, Address, Question-Cum-Answer (QCA) Booklet No. etc. elsewhere in the Booklet
2	अपनी प्रश्न-सह-उत्तर पुस्तिका में कहीं भी प्रश्नों के वास्तविक उत्तर के अतिरिक्त कुछ न लिखें जैसे कि कोई कविता/दोहा, अभद्र या अपमानजनक अभिव्यक्ति इत्यादि और न ही कोई ऐसा चिन्ह/निशान बनाएं जिसका उत्तर से सम्बन्ध न हो।	Do not write in the QCA Booklet anything other than the actual answer such as couplet, obscene, abusive expression etc., nor put any sign/mark having no relevance to the answer.
3	परीक्षक को प्रत्यक्ष/अप्रत्यक्ष रूप से कोई भी प्रार्थना/धमकी भरी बातें न लिखें।	Do not make any direct/indirect appeal/threat to the examiner.
4	उत्तर अस्पष्ट अथवा गंदी लिखावट में न लिखें। इस प्रकार के उत्तर का मूल्यांकन नहीं भी किया जा सकता है।	Do not write answers in bad/illegible handwriting. Such answers may not be evaluated.
5	उत्तर स्याही में ही लिखें। उत्तर लिखने के लिए पेंसिल का उपयोग न करें, हालांकि आरेख, चित्र इत्यादि बनाने के लिए पेंसिल का उपयोग किया जा सकता है।	Write answers in ink only. Do not use pencil for writing the answers. However, pencil may be used for drawing diagrams, sketches, etc.
6	प्रवेश पत्र में उल्लेख किए गए माध्यम के अलावा अन्य किसी माध्यम में उत्तर न लिखें। अधिकृत और अनधिकृत की मिली जुली भाषा का भी उपयोग न करें।	Do not write answers in medium other than the authorized medium in the Admission Certificate. Do not use mixed language either i.e. authorize and unauthorized media together for writing answers.
7	प्रश्नों के उत्तर ठीक उसके नीचे दिए गए निर्धारित स्थान पर ही लिखें। निर्धारित स्थान के अलावा किसी अन्य स्थान पर लिखे गए उत्तर का मूल्यांकन नहीं किया जाएगा।	Write answer at the specific space (right below the question) only. Answers written elsewhere at unspecified places in the booklet shall not be evaluated.
8	यदि आप अपने किसी उत्तर को रद्द करना चाहते हैं तो उसे पेन से काट दें तथा उस पर "रद्द" लिख दें, अन्यथा उसका मूल्यांकन किया जा सकता है।	If you wish to cancel any work, draw your pen through it and write "Cancelled" across it, otherwise it may be valued.

कार्यालय के प्रयोग हेतु For Official Use	कार्यालय के प्रयोग हेतु For Official Use
परीक्षक के हस्ताक्षर Signature of Examiner(s)	

प्राप्तांक के विवरण (परीक्षक द्वारा भरा जाए)/ Marks Details (To be filled by the Examiner(s))

प्रश्न सं. Q. No.	अंक Marks		प्रश्न सं. Q. No.	अंक Marks	
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		
उप-योग (A) Subtotal (A)			उप-योग (B) Subtotal (B)		
सकल योग (A+B) / GRAND TOTAL (A+B)					

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सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2219)

निर्धारित समय: **तीन** घंटे Time Allowed: **Three** Hours	अधिकतम अंक: **250** Maximum Marks: **250**

प्रश्न-पत्र संबंधी विशेष अनुदेश

कृपया प्रश्नों के उत्तर देने से पूर्व निम्नलिखित प्रत्येक अनुदेश को ध्यानपूर्वक पढ़ें:

*कुल **बीस** प्रश्न दिए गए हैं जो **हिंदी** और **अंग्रेजी** दोनों में छपे हैं।*

सभी प्रश्न अनिवार्य हैं।

प्रत्येक प्रश्न/भाग के लिए नियत अंक उसके सामने दिए गए हैं।

प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए, जिसका उल्लेख आपके प्रवेश-पत्र में किया गया है, और इस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यू.सी.ए.) पुस्तिका के मुख-पृष्ठ पर निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिखे गए उत्तर पर कोई अंक नहीं मिलेंगे।

प्रश्न संख्या 1 से 10 तक का उत्तर 150 शब्दों में तथा प्रश्न संख्या 11 से 20 तक का उत्तर 250 शब्दों में दीजिए।

प्रश्नों में इंगित शब्द सीमा को ध्यान में रखिए।

प्रश्न-सह-उत्तर पुस्तिका में खाली छोड़े गए कोई पृष्ठ अथवा पृष्ठ भाग को पूर्णतः काट दीजिए।

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions.

*There are **TWENTY** questions printed both in **HINDI** and in **ENGLISH**.*

All questions are compulsory.

The number of marks carried by a question/part is indicated against it.

Answers must be written in the medium authorized in the Admission Certificate which must be stated clearly on the cover of this Question-cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in a medium other than the authorized one.

Answers to Questions No. 1 to 10 should be in 150 words, whereas answers to Questions No. 11 to 20 should be in 250 words.

Keep the word limit indicated in the questions in mind.

Any page or portion of the page left blank in the Questions-cum-Answer Booklet must be clearly struck off.

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EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

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1. राजकोषीय नीति आय असमानता को कम करने के साथ-साथ सबसे निर्धन और अभावग्रस्त लोगों को देश की विकास यात्रा का हिस्सा बनाने के लिए एक महत्वपूर्ण साधन हो सकती है। भारत के संदर्भ में चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)

Fiscal policy can be a key tool to reduce income inequality as well as make the poorest and the downtrodden a part of the country's growth story. Discuss in the context of India. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Fiscal policy refers to the measures taken by Government towards fostering development and financial management. It includes details on revenue and expenditure of Government.

FISCAL POLICY: TOOL TO REDUCE INCOME INEQUALITY

- Taxation on rich → Income Tax
  Subsidies to poor
  → PAHAL Yojana

- Safety Net towards inclusive growth
  → Atmanirbhar Bharat Package

- Expenditure on welfare projects
  ↳ Har Ghar Jal

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FISCAL POLICY: Making Poorest and Downtrodden part of country's Growth

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

- Safeguarding their livelihood interest
  - ⇒ Svanidhi – street Vendor
  - PMFBY → ₹6000 to farmers →
  - Positive growth of only Agricultural sector during COVID Lockdown
- Policies to boost informal sector → MSME's → Public Procurement Policy
- Expenditure on Infrastructure (4% GDP) → increase connectivity ↗ employment opportunities
- By insuring access to basic facilities → ⇒ National Food Security Mission
  - ↓
  - healthy workforce

Fiscal Policy stands at the 'pivot' determining inclusive and sustainable development.

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2. भूमि अभिलेखों का डिजिटलीकरण करना भूमि सुधार सुनिश्चित करने के साथ-साथ भारतीय न्यायपालिका पर बोझ को कम करने में भी काफी सहायक होगा। विस्तारपूर्वक समझाइए। साथ ही, इस संदर्भ में किए गए उपायों का भी उल्लेख कीजिए। (उत्तर 150 शब्दों में दीजिए)

Digitizing land records will go a long way in ensuring land reforms as well as lessening the burden on the Indian Judiciary. Elaborate. Also, state the measures taken in this context. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Land reforms undertaken in post-independent India has been succesfully implemented only in few states → West Bengal, Kerala

Advantages of Land Record Digitizing

- Land Reforms:
  - Title rights ensured → In turn promote
    → collaborative farming → consolidation of land
    → corporate farming
  - Reduce illegal occupation of land
    reduce corruption
  - Easy access to land records →
    easy access to credit facilities
    ↳ thrust towards mechanisation

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- Promotes land pooling and land banks

उम्मीदवारों को इस मार्जिन में नहीं लिखना चाहिए
Candidates must not write on this margin

Lessen Burden on Indian Judiciary :-

- Tittle rights → reduce land litigation
  ↓
  reduce overall burden on Indian Judiciary

Measures taken :-

① SVAMITVA :- Ministry of Panchayati Raj
- Prone based survey towards land titling and digitization

② BHOOMIApp - Karnataka → centralized portal of land records

③ National Land Record Modernisation Program → central database.

Digitizing land records will enable converting farming sectors as agripreneurs (Strategy for India @ 75)
— Niti Ayog

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3. ऐसा भी कहा जाता है कि अधिकांशतः नॉन-मेरिट सब्सिडी के लिए निधि (फंड) उपलब्ध कराने वाली प्रतिस्पर्धी राजनीति, भारत में कुछ राज्यों को गंभीर राजकोषीय संकट के कगार पर धकेल रही है। इस संदर्भ में, भारत में सब्सिडी व्यवस्था को युक्तिसंगत बनाने की आवश्यकता पर चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)

It has been pointed out that competitive politics to fund mostly non-merit subsidies is pushing a few states in India to the brink of a deep fiscal crisis. In this context, discuss the need to rationalise the subsidy regime in India. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Recent debate on 'revdi culture' has necessitated us to look at political populism towards non-merit subsidies

Need to rationalise subsidy regime

1) Rational Use of Resources

→ Telangana 65% of state GDP spent on 5 subsidy schemes

2) Leads to fiscal opportunism → economic crisis

→ Srilanka economic crisis

3) No money is free (zero sum game)

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4) Discourage honest Tax payers

↳ Tax payers money used for failure of bureaucratic policies

⇒ Loan waiver

5) Environmental unsustainable practices encouraged

⇒ MSP on paddy — exploitation of water resources

6) Ripple ~~economy~~ effect on critical infra

⇒ subsidy on electricity (Punjab)

↓

burden on state DISCOM's → Overall Power crisis

7) Fiscal prudence of Government is hampered

Way Forward

→ Control by Centre monitoring financial position of state

↳ clear demarcation between merit and non-merit subsidies.

We need to concentrate on developing infrastructure so as to prevent the need to provide subsidies.

उम्मीदवारों को इस मार्जिन में नहीं लिखना चाहिए
Candidates must not write on this margin

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4. सूक्ष्म-सिंचाई में कृषि को एक लाभदायक और टिकाऊ उद्यम में परिवर्तित करने की वृहद् क्षमता है। दिए गए कथन की प्रधान मंत्री कृषि सिंचाई योजना के संदर्भ में विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)

Micro-irrigation has tremendous potential in transforming farming into a profitable and sustainable venture. Discuss the given statement in the context of Pradhan Mantri Krishi Sinchai Yojana. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Micro irrigation refers to modern technology that uses dripper, sprinkler etc towards efficient and effective use of water in agriculture

Potential of Micro Irrigation
- ↑ water productivity = 40%
- ↓ water waste = 45%
- ↑ Farmer's income = 50%

↓

Dalwai Pannel Recommendation

Profitable + Sustainable Farming Venture

Pradhan Mantri Krishi Sinchai Yojna

- Aims at catalysing the adoption of micro irrigation

↳ incentives for adoption

↳ lesser cost of microirrigation inputs

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

- Objective of Per Drop More Crop

  ↳ increasing water use efficiency

  (drip irrigation efficiency = 97%
  flood irrigation efficiency = 38%)

- Har Khet ko Paani → by encouraging irrigation connectivity

- overall aim to increase agricultural productivity

Pradhan Mantri Krishi Sinchayi Yojana has the potential to double farmers income as well as enable environmental sustainable agriculture

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5. भारत के विशाल संसाधनों और तकनीकी विशेषज्ञता को देखते हुए, यह जलवायु परिवर्तन के प्रभाव से निपटने में प्रशांत महासागर के लघु विकासशील द्वीपीय देशों (PSIDS) की सहायता करने में महत्वपूर्ण भूमिका निभा सकता है। विश्लेषण कीजिए। (उत्तर 150 शब्दों में दीजिए)

Given its vast resources and technical expertise, India can play a key role in assisting the Pacific Small Island Developing States (PSIDS) in dealing with the impact of climate change. Analyse. (Answer in 150 words) 10

उम्मीदवारों को इस मार्जिन में नहीं लिखना चाहिए
Candidates must not write on this margin

Recent image of Tuvalu President addressing COP26, standing amidst knee high water, necessitates us to look towards assisting Pacific small Island Developing states (PSIDS)

INDIA's key Role in assisting PSIDS:

Resources

→ economic :-

- Investment in renewable energy projects
- Building disaster resilient infrastructure

→ Developmental

- Social Capital — building developmental projects
  → health, road

Energy Connection

→ International Solar Alliance

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Technical Expertise

- Renewable Energy
  - Solar, wind, Hydropower
- Satellites
  - Providing satellite imagery
  - Mapping to track rise in sea level

Prevention/Protection from climate vulnerabilities

- Radar system → detect tropical cyclones

India being a responsible country has immense opportunity to act and assist PSIDS, thereby aiding us to become a VISHWA GURU

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6. हालिया "पंचायती राज मंत्रालय की आपदा प्रबंधन योजना (DMP-MoPR)" का उद्देश्य जमीनी स्तर पर आपदा प्रत्यास्थता विकसित करना है। इस संदर्भ में, इस योजना के निर्माण के लिए उत्तरदायी तर्क की विवेचना कीजिए और इसके प्रमुख घटकों पर प्रकाश डालिए। (उत्तर 150 शब्दों में दीजिए)

The recent "Disaster Management Plan of Ministry of Panchayati Raj (DMP–MoPR)" aims to develop disaster resilience at the grassroots level. In this context, discuss the rationale behind the formulation of the Plan and highlight its key components. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Disaster Management has become indispensable safeguarding India's interest given rising climate change vulnerabilities

Rationale behind formulation of Disaster Management Plan (MOPR)

- Earlier framework disregarded the role of Panchayats in disaster management
  - NDMA, 2019 → starts from district administration → District Collector
- Empowering local body towards disaster resilience

VISION IAS

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

- strengthens Bottom-Up approach towards disaster management

- Building grass root level mitigation measures and resilience

  ↳ reducing the burden on district and state

  ↳ reduction in financial burden

- Develop local solutions to counter local disasters induced by climate change

  ↳ Preventing settlement ~~along~~ close to coastal bed

(DMP. MOPR) is a right step towards enabling the role of local bodies towards disaster management.

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7. राज्य एवं गैर-राज्य अभिकर्ताओं द्वारा उभरती एवं विघटनकारी प्रौद्योगिकियों (EDT) के उपयोग से उत्पन्न आंतरिक सुरक्षा संबंधी निहितार्थों पर चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)
Discuss the internal security implications emanating from the use of Emerging And Disruptive Technologies (EDT) by state and non-state actors. (Answer in 150 words) 10

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
Candidates must not write on this margin

Internal security has gained increased importance ~~at~~ amidst growing emerging and disruptive technologies (EDT)

Internal security Implication arising from EDT

- State Actors :-
  - Use of unmanned Aerial Vehicles carrying bombs
    - Found along North-Western Border
  - Cross border terror financing
  - Cybersecurity threats on critical infrastructure :
    - Chinese Hackers — hacked Mumbai power distribution — halting local trains

- Drug Menace → Drug business happening through dark web

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

- Non state Actors :-
  - Use of IEDs by Naxalites
  - Illegal Financing through Crypto currency
  - Social Media → used as a means to spread political ideology (Anonymity)
    - ↳ seen in Jammu Kashmir
      - ↳ Difficulty to track the under
  - Radicalisation of Youth through Social Media

Way Forward
- Smart Policing
- Revamp Security Infra
  - ↳ CyberDome - Kerala
- International Cooperation
  - ↳ FATF
- Strict compliance measure on Social Media intermediaries.

Increasing technological & global interconnectedness has resulted in increasing internal security threat

8. अपने रक्षा निर्यात को बढ़ावा देने में भारत द्वारा सामना की जाने वाली बाधाओं की पहचान कीजिए। साथ ही, इस संबंध में सरकार द्वारा उठाए गए कदमों पर भी चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)

Identify the impediments faced by India in boosting its defence exports. Also, discuss the steps taken by the government in this regard. (Answer in 150 words) 10

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
Candidates must not write on this margin

SIPRI report, stated increasing defence imports from India, despite this India stands as 2nd largest defence import country

IMPEDIMENTS FACED in DEFENCE EXPORTS :-

(i) Greater role of Govt PSU's lack of Private participation

(ii) Lack of Academia - Industria linkage

(iii) Intellectual Property rights issue

- Many components being developed by defence forces have IPR problems abroad

(iv) Concentration only on developing individual parts than entire system

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(v) Failure to target import destination countries

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Steps taken by Government.

① Draft Defence Procurement Policy :

- List of -ve goods → compulsory purchase by domestic players

② Offset Policy -- towards encouraging building entire structure

③ Budget-2022 : 25% Defence R&D towards private

④ Idex → promoting innovation in defence

⑤ Defence deals with countries like Philippines (Brahmos)

Way Forward

- academia - industry linkage
  - ↳ Defence Development Course in IITs
- Increase defence exercises with countries to know their demand.

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9. अंतरिक्ष मलबे से जुड़े विविध मुद्दों पर चर्चा कीजिए। साथ ही, इस खतरे से निपटने के लिए हाल के दिनों में की गई पहलों का भी उल्लेख कीजिए। (उत्तर 150 शब्दों में दीजिए)

Discuss the multiple issues associated with space debris. Also, state the initiatives taken in recent times to tackle this menace. (Answer in 150 words) 10

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
Candidates must not write on this margin

Increasing space missions has led to the problem of space debris

Issues associated with Space Debris

① Kessler's syndrome :

Where multiple space debris clash on each other creating further debris

② Hinder future space missions

↳ complicate space travel

③ Developing countries are at disadvantage to capitalise on space economy

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④ Hinders satellite movement

Repurcussions on → communication
→ Defence communication
→ Satellite images
↓
disaster management, weather forecast

Initiatives taken :

① Reusable launch vehicles developed by ISRO + SpaceX

② JAXA and NASA collaboration towards removing space debris

③ India's project → 'NETRA'

Space debris challenge has to tackled with international cooperation

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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10. भारत में ओपन नेटवर्क फॉर डिजिटल कॉमर्स (ONDC) को अपनाने से उपभोक्ताओं के लिए ई-कॉमर्स के अधिक समावेशी और सुलभ बनने की संभावना है। चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)

The adoption of Open Network for Digital Commerce (ONDC) in India is expected to make e-commerce more inclusive and accessible for consumers. Discuss. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Recent initiative of Ministry of Commerce towards developing open Network Digital Commerce is a step towards right direction

Need → Civil Report : 25% of MSME's have lost their market share to large digital commerce player

ONDC - Role :

① Aims to integrate different digital commerce platforms into single entity → towards increasing accessibility

Eg

Zomato
↓
Amazon [ONDC] ← Flipkart
↑
Myntra

② Safeguards the interest of small digital commerce players

↳ prevents non-ethical market practices

↳ Level playing field

↳ reduces monopolisation of digital commerce platforms

Inclusivity

ONDC is a step taken towards democratising the digital commerce. This needs to be further strengthened by reorienting the role of Competition Commission of India

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

VisionIAS

11. यद्यपि, हाल ही में "क्षतिकारक" सरकारी मत्स्यन सब्सिडी को रोकने के लिए डब्ल्यू. टी. ओ. के मंच पर एक समझौते पर सहमति बनी है, तथापि, भारत द्वारा उठाई गई कुछ चिंताओं से पता चलता है कि इस मामले में और अधिक वार्ता किए जाने की आवश्यकता होगी। चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए)

While an agreement was recently reached at the WTO on a deal to curb "harmful" government fisheries subsidies, certain concerns raised by India suggests that the matter will require further negotiations. Discuss. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

The recent WTO ministerial meeting, addressed the issue of harmful government fisheries subsidies

Need for the decision :-

- non-environmental friendly fishing practices - deep trawl fishing
- misuse of open waters
- Incentives to large fishery industry
  - harming trade practices
    - China's Fishing industry

Decision of WTO

- Restrict incentive / subsidies given to fishery sector
  - ↓
  - Prevent trade distortion
  - Safeguard marine environment

VisionIAS

Concerns raised by India :-

1) hurts the interests of small fisherman in developing countries

2) More than 90% of Indian fisherman are in below poverty line category
↓
safety net through fisheries subsidies necessary to ensure economic viability

3) Threatens livelihood of coastal community solely dependent on fishing

4) Fishing practices adopted in developing countries are obsolete → Need of handholding support to modernise

5) WTO decision safeguards interest of developed countries
↳ lack of level playing field to developing

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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India's way forward :-

(i) Group with similar interest small island countries

(ii) Negotiate in the next WTO meeting

(iii) Continue the present subsidies to fisheries - as → Fishery in India not an enterprise or industry. unlike developed countries

↓

Protect interest of fisherman

India has a coastline of 7500 km along with Inland waterways of 14,500 km, any attempt to curb incentives will threaten the livelihood of many families. Thereby, India has to negotiate towards safeguarding Interests of fishermen.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

VisionIAS

12. सड़क निर्माण क्षेत्रक में हाइब्रिड एन्यूटी मॉडल (HAM) से जुड़े लाभों के बावजूद, विभिन्न कारणों से इसमें रुचि कम हुई है। विवेचना कीजिए। (उत्तर 250 शब्दों में दीजिए)

Despite the advantages that are associated with the hybrid annuity model (HAM) in the road construction sector, the interest in it has moderated due to various reasons. Discuss. (Answer in 250 words) 15

उम्मीदवारों को इस क्षेत्र में कोई विवरण नहीं लिखना Candidates must not write on this margin

Hybrid Annuity model is a unique method of public-private-partnership

Advantages

- Has the merits of Engineering-Procurement-Construction + Build-Operate-Transfer
- Equitable distribution of burden between Govt + Pvt
- Hand holding support to private
  - Govt Pays (40%) of money through 3 installments
- Toll collection by Govt

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Interest Moderated Due to Following Reasons :-

(i) Improper framework of HAM

- No clear demarcation of risk sharing

(ii) Financial disbursals by Govt often delayed - stalling the project

(iii) Environment clearances marred with red-tapism and multiplicity of clearances from different ministries → delays construction

(iv) Private Players are leaving the contract in between due to increased cost burden

↳ Disinterest amongst other private players to participate

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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Way Forward :-

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

① Vijay Kelkar committee recommendations to be adopted while framing 'HAM' contract

② Single window environment clearance

③ Timely financial assistance to private sector

④ clear demarcation of the role and duty between Govt + PVA
↳ less scope for interpretation.

As India adopts 'National Infrastructure pipeline' → the role of Private and Public becomes indispensable in Infrastructure creation.

VisionIAS

13. मौजूदा एम. एस. पी. खरीद व्यवस्था न तो आर्थिक दृष्टि से और न ही कृषि-पारिस्थितिकी रूप से सधारणीय है। सविस्तार वर्णन कीजिए। साथ ही, मौजूदा एम. एम. पी. व्यवस्था में सुधार के लिए अपनाए जा सकने वाले वैकल्पिक तरीकों का मूल्यांकन कीजिए। (उत्तर 250 शब्दों में दीजिए)

The existing MSP procurement regime is neither economically nor agro-ecologically sustainable. Elaborate. Also, evaluate the alternative approaches that can be adopted to improve the existing MSP regime. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Minimum Support Price refers to the minimum price the Government pays to the farmer while procuring the grains. Presently notified for 22 crops

Existing Procurement Regime

- 22 Crops
- Calc = 1.5 (A2+FL)
- Govt announces MSP – Farmer can sell to → FCI @ MSP / → Vendor > MSP

MSP not economically viable as :-

1. Open ended procurement causing
   - Increased financial burden on Govt

- Increased investment in cold storage mechanisms

2. Prevents agridiversification
   ↳ unable to tap the potential of agroeconomy

3. Exports of AgriGoods are mostly MSP crops → rice, wheat

4. Agriculture Contribution to GDP stagnant at 16-18% GVA

5. Populism → Fiscal opportunism

MSP not ~~economically~~ Environmentally sustainable

1. Promotes water intensive crops
   - 80% freshwater used for agriculture
   - 60% groundwater used in agriculture → Ground Water Table ← receding

Punjab to become 'drought prone' by 2030 if same practices continues (Niti Aayog)

2. Virtual export of water
   ↳ Paddy exports

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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3. Preventing farmers to adopt micro irrigation
↳ Rice → flood irrigation

4. Indiscriminate use of fertilizers & pesticides → soil pollution
→ water pollution

5. Practice of stubble burning to prepare the field for wheat (MSP crop)

Alternative Approaches
- → close ended procurement (eg AASHA scheme)
- → Incentive towards agri diversification → millets, pulses
- → cap MSP on rice and wheat
- → separate electricity feeder lines for agriculture

Rainbow Revolution
Not merely Green revolution

MSP acts as a price assurance to small and marginal, however, a balance needs to be struck by protecting farmers interest and eco-env sustainability

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

14. यह तर्क दिया जा रहा है कि भारत गोदामों में खाद्यान्नों की अधिकता से जूझ रहा है। भारत की मौजूदा बफर स्टॉक नीति को ध्यान में रखते हुए इस कथन की विवेचना कीजिए। (उत्तर 250 शब्दों में दीजिए)

It is being argued that India is struggling with overflowing foodgrains in warehouses. Discuss the statement in view of the existing buffer stock policy of India. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

FCI maintains the buffer stock of food grains towards safeguards food security

Rationale of Buffer stock Policy

- Food Security of the country
  - ▷ covid lockdown
- Protect country from market volatility of agri goods
  - ▷ food inflation
- Interest of Farmers: procurement through MSP

  Interest of poor: PDS regime

Challenges in Buffer stock

- excess than required
  - ▷ wheat stock are excess ~~than~~ by multifold
- Post harvest losses
  - ₹ 90,000 Crore

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→ Improper cold storage mechanisms and warehouses

→ skewed availability of warehouses → concentrated in North West and Central region
↳ ↑ transportation and logistic cost

↳ Entire burden on FCI
↳ lack of private participation
↳ financial burden due to open procurement regime.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

WAY FORWARD

→ Catalyse Private Participation
↳ Private Procurement and Stockist Policy → AASHA scheme

→ cap the maximum limit
· Excess grains → exported
↓
income to country

VisionIAS

→ close ended procurement regime

→ Cap on stocking grains in warehouses needs to be flexible towards promoting private players

→ Public-Private Partnership → warehouse, cold storage infrastructure.

There is a need to rationalise and harmonize bufferstock policy to reduce economic losses.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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15. हाल ही में, सरकार ने सभी पत्तनों (पोर्ट्स) को वर्ष 2047 तक स्वयं को 'मेगा पोर्ट्स' के रूप में विकसित करने के लिए एक मास्टर प्लान तैयार करने हेतु निर्देश दिया है। इस परिप्रेक्ष्य में, पत्तनों द्वारा सामना की जाने वाली चुनौतियों पर चर्चा कीजिए और साथ ही, भारत की ब्लू इकॉनमी को आगे बढ़ाने के लिए उपचारात्मक उपायों का सुझाव दीजिए। (उत्तर 250 शब्दों में दीजिए)

Recently, the government has asked all ports to prepare a master plan in order to become 'mega ports' by 2047. In light of this, discuss the challenges faced by ports and suggest remedial measures in order to propel India's blue economy. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

India has 12 major ports along 7500 km coastline.

Recent direction of government through Ports (amendment) bill aims at strengthening port economy towards catalysing Blue economy

Challenges faced by Ports

1. Connectivity:

- No proper connection between port – road, air cargo, railway } discourages shipment by ports

2. Time taken by ships to dock the cargo and return is

extremely high compared to global average of ship returning time

3. Modernisation of Ports lagging behind

4. Federal issues : Major ports controlled by centre while minor ports under the jurisdiction of state.

↳ Improper coordination.

Remedial measures

- Multimodal connectivity between ports and port and other modes of transport
- Modernise and improve port infrastructure
  - Reduce time
- Integrated approach of ministries and not silo participation
- consultation between federal units.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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- enhance private sector participation
- develop the area around the port
  - warehouse facilities
  - cold storage facilities

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Potential of Blue economy
- 90% of international trade by volume happens through water
- Reduce logistics cost
- Reduce carbon emissions
  - env targets
- employment opportunities boostered.

Knowing the significance of Blue economy, Govt has taken steps like Mega Ports by 2047, Gati Shakti masterplan.

VisionIAS

16. आय और संपदा में असमानता कार्बन असमानता में परिवर्तित हो जाती है। इस संदर्भ में, भारत के लिए कार्बन असमानता को दूर करने के महत्व पर चर्चा कीजिए और इसे प्राप्त करने के उपायों का सुझाव दीजिए। (उत्तर 250 शब्दों में दीजिए)

Inequality in income and wealth translates into carbon inequality. In this context, discuss the significance of addressing carbon inequality for India and suggest ways to achieve it. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

OXFAM report, reclaimed that bottom 50% of Indias population shares only 6% of total wealth, showing the income and wealth inequality

Inequality in Income and Wealth Translates into carbon Inequality

Inequality → lies standard of living → No pvt vehicle
→ Less scope for materialisation
↓
Indiscriminate buying
Lesser Income
lesser carbon footprint ←

Higher Income
→ Multiplicity of Pvt Vehicles
→ ↑ water usage + CO_2 emissions
→ materialism → ACs, Lighting } Indirect CO_2 emis
⇓
↑ carbon footprint.

SIGNIFICANCE

- Thereby resulting in carbon inequality where rich contribute to CO_2 however poor face the consequences of climate change

- Catalyzes further income inequality
  → vicious cycle

MEASURES TO ACHIEVE CABON EQUALITY

→ Carbon Tax
  to be imposed on rich
  - Automobile (high end cars)
  - Multiplicity of vehicles

→ Vehicle Scrappage Policy

→ Promote Public Transportation
  - Encourage middle income household to use public than private transport

→ CSR contribution towards environment

उत्तरपत्रों को इस मार्जिन में नहीं लिखना चाहिए
Candidates must not write on this margin

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→ strict regulating mechanism and standardisation of AI's, lighting prevent additional carbon emissions

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

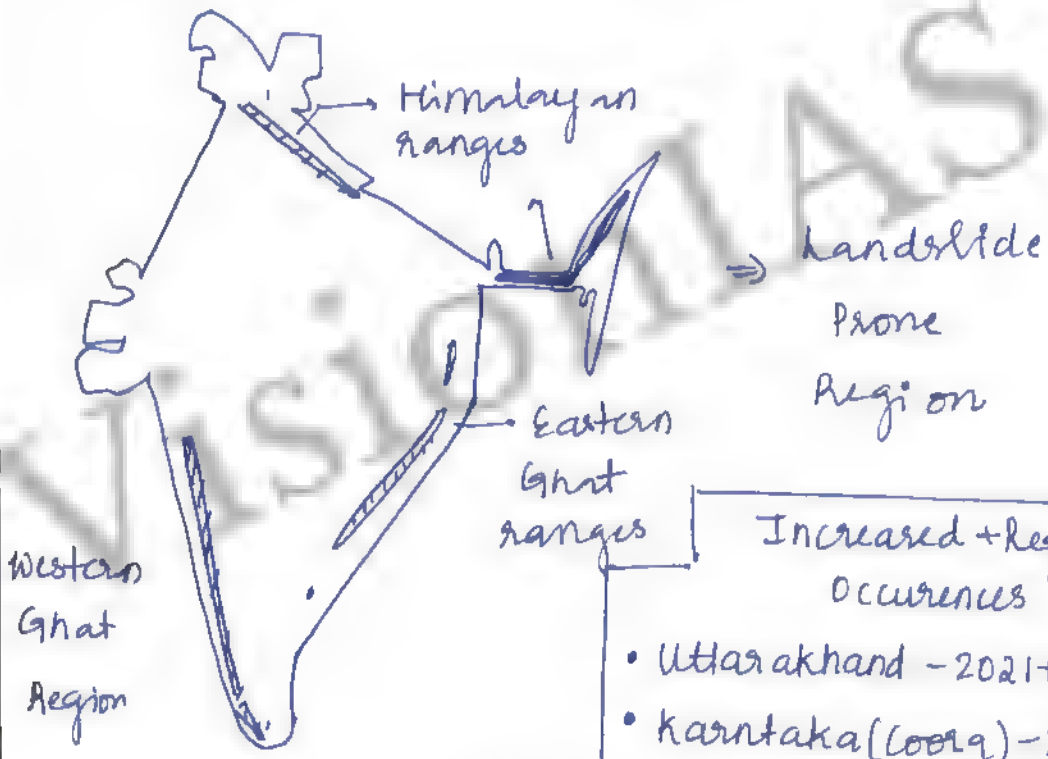
carbon inequality needs to curbed as we aim at becoming Net Zero emitting country by 2070 (COP-26 India commitment.

VisionIAS

17. भारत में पिछले एक दशक के दौरान भूस्खलन की बढ़ती और नियमित घटनाओं के बावजूद, विकास के प्रमुख प्रतिमानों (पैरडाइम) में कोई मुख्य संशोधन नहीं किया गया है। परीक्षण कीजिए। (उत्तर 250 शब्दों में दीजिए)।
Despite increased and regular occurrences of landslides over the past decade in India, the dominant development paradigm has largely not been modified. Examine. (Answer in 250 words)15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

According to NDMA, 15% of Indian landmass is prone to landslide



Increased + Regular Occurences
- Uttarakhand - 2021 + 2022
- Karntaka (Coorg) - 2020 + 2021 + 2022
- Kerala • Assam

Reason for Regular occurences

Natural :-
- Loose geomorphic structure
  ⇒ sedimentary rock
  → himalayan rang.

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- Increased rainfall → cloudburst ▷ Assam, Uttarakhand plains
  - ↑ saturation – loose soil mass slips
- Plate activity – Himalayan range
- Steep slope – western ghats

Anthropogenic

Developmental

- → encroachment along environment sensitive zone
- ↑ demographic load
- deforestation, land clearance
  - → soil erosion
- Practices like shifting Agriculture
- Increased greenhouse gas emission
- → climate change – unseasonal rainfall

Way Forward :-

① Structural → Prevent human settlements along slope

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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→ slope reinforcement methods needs to be taken

- deforestation avoided
- Agriculture : contour / Bund agricultural practices

Non structural
- mapping
- Standard Operating Procedures to tackle landslide.

There is a need to balance development with environment; compromise on environment will lead to human as well as structural loss pushing the country towards underdevelopment

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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18. राष्ट्रीय सुरक्षा हितों के साथ वैध सीमा-पार प्रवाह को संतुलित करने के लिए भारत को एक स्मार्ट सीमा प्रबंधन प्रणाली की आवश्यकता है। चर्चा कीजिए। साथ ही, इस संबंध में सरकार द्वारा प्रारंभ की गई पहलों को रेखांकित कीजिए। (उत्तर 250 शब्दों में दीजिए)

India needs a smart border management system to balance legitimate cross border flows with national security interests. Discuss. Also, highlight the initiatives taken by the government in this regard. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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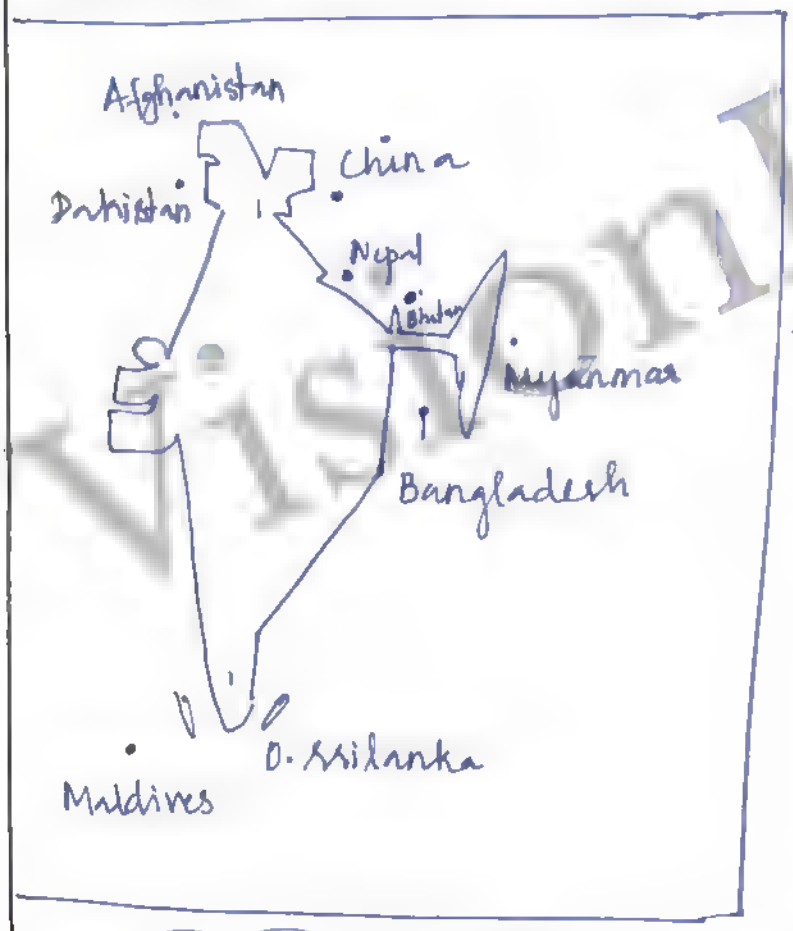
India has been uniquely placed geographically. It shares continental as well as maritime borders



→ Border shared by India

Need for Smart Border Management

- Increasing use of modern methods like Drones across western border :
  - Drones spotted near Pulwama Air base

- Political instability in neighbouring countries → Srilanka, Myanmar
  - → refugee crisis

- Terrorism → 26/11 Terrorist entered through Gujarat Coast

- Drug Trafficking : closeness to Golden Triangle and Golden crescent
  - Drugs found along Kandla Port

- Cross border movement – porous borders
  - Nepal
  - Myanmar
  - Bangladesh
  - → NE insurgency

- Maritime → safeguard from China's string of pearl strategy

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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Initiatives taken by Govt :

(i) Uniformity in Jurisdiction of Border Security Force

≃ 50km along North West and Bangladesh borders.

(ii) Specialised + Modernisation to tackle with new border threats

(iii) Border diplomacy → cooperation with bordering countries

(iv) separate police troops safeguarding borders according to need

BSF → Punjab Pakistan, Bangladesh

ITBP → China Border

Way Forward : Modernise Border Police, increase cooperation with neighbouring countries

India's border play ~ strategic role in safeguarding internal + external security.

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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19. वैश्वीकरण और धन शोधन के बीच संबंध स्थापित करते हुए, इससे निपटने के लिए राष्ट्रीय और अंतर्राष्ट्रीय स्तर पर प्रारंभ की गई पहलों पर चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए)

Establishing linkages between globalisation and money laundering, discuss the initiatives taken at the national and international levels to combat it. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Globalisation refers to inter connectedness and interdependencies between countries economy.

Money laundering refers to the activity of converting illegal (black money) towards white money

Linkages between Globalisation and Money laundering :-

Impact of Globalisation	on Money laundering
- FDI, FPI - Cross border economic activity	• Safe havens • Avoiding paying taxes • Round tripping ⇓ hawala money

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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Security • Influence from abroad	Cross border terror financing
Technology interconnectedness • Deep web * • Dark web * Crypto Currency	Illegal transfer of funds to disturb law and order → Doubt / Claims that Khalistani groups funding farm law opposition

Initiatives taken

National level
- → Foreign Contribution Regulation Act
- → FEMA
- → Institutions like
  - → ED
  - → CBI
  - → NCRB, NCB
- → Policies like
  - • taxing virtual assets
  - • stricter rules of functioning of NGO.

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International Bodies

- UN Committee on Drug Trafficking & Money Laundering
- Financial Action Task Force
- OECD proposal → Global Base Erosion Tax - 15%

Money laundering threatens the economic as well as social fabric. Multistakeholder approach with international commitment necessary towards addressing ills of money laundering

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
Candidates must not write on this margin

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20. ऐसे तर्क दिए गए हैं कि भारत को बाह्य अंतरिक्ष की प्रकृति के बारे में अपनी कुछ पुरानी धारणाओं की समीक्षा करने और नए वैश्विक मानदंडों के विकास में योगदान देने की आवश्यकता है। इस संदर्भ में, आर्टेमिस समझौते के संदर्भ में भारत के दृष्टिकोण का विश्लेषण कीजिए। (उत्तर 250 शब्दों में दीजिए)

There have been arguments that India needs to review some of its past assumptions about the nature of outer space and contribute to the development of new global norms. In this context, analyse India's stand in relation to the Artemis Accords (Answer in 250 words) 15

उम्मीदवारों को इस मार्जिन में नहीं लिखना चाहिए
Candidates must not write on this margin

There has been recent race towards weaponising the outer space ⇒ Russia and China's policies

Artemis Accords : refers to commitment towards not allowing any weaponisation or discriminate use of outer space resources / planets. ⇒ on Moon, Mars

Need to Review Past Assumptions

→ Towards international cooperation
↳ as responsible country

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उम्मेदवारों को इस हाशिए में नहीं लिखना चाहिए
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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए

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सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2424)

निर्धारित समय: तीन घंटे
*Time Allowed: **Three Hours***

अधिकतम अंक: **250**
*Maximum Marks: **250***

सामान्य अनुदेश

इस प्रश्न-सह-उत्तर (क्यू.सी.ए.) पुस्तिका में 55+1 पृष्ठ हैं। प्रश्न-पत्र, क्यू.सी.ए. पुस्तिका के अंत में संलग्न है, जो अलग (वियोज्य) किया जा सकता है और उम्मीदवार परीक्षा के उपरांत अपने साथ ले जा सकते हैं।

रफ कार्य के लिए, इस पुस्तिका के अंत में खाली पृष्ठ दिया गया है।

पुस्तिका प्राप्त होने पर, कृपया यह जांच कर लें कि इस क्यू.सी.ए. पुस्तिका मे कोई कमी न हो, फटा हुआ पृष्ठ न हो अथवा कोई पृष्ठ गायब न हो इत्यादि। यदि ऐसा हो, तो इसके बदले नई क्यू.सी.ए. पुस्तिका प्राप्त कर लें।

General Instructions

This Question-Cum-Answer (QCA) Booklet contains 55+1 pages. Question Paper in detachable form is available at the end of the QCA Booklet which can be taken away by the candidate after examination

For rough work, blank page has been provided at the end of this Booklet

On receipt of the Booklet, please check that this QCA Booklet does not have any shortcomings, torn or missing pages etc. If, so, get it replaced with a fresh QCA Booklet.

(उम्मीदवार द्वारा भरा जाएगा/To be filled by the Candidate)

पंजीकरण सं./Registration No. : 1297803

अभ्यर्थी का नाम/Name of Student : ANUPRIYA

माध्यम: हिंदी/अंग्रेजी
Medium: Hindi/English

English

तारीख
Date

सामान्य अध्ययन (प्रश्न पत्र-I)
GENERAL STUDIES (Paper I)

केंद्र
Centre

Bengaluru

निरीक्षक के हस्ताक्षर
Invigilator's Signature

	महत्वपूर्ण अनुदेश	Important Instructions
	उम्मीदवारों को नीचे उल्लिखित निर्देश सावधानी से पढ़ लेने चाहिए। किसी भी निर्देश का उल्लंघन करने पर उम्मीदवारों को मिलने वाले अंकों में कटौती, उम्मीदवारी रद्द या आयोग के परवर्ती परीक्षाओं के लिए वर्जित करने इत्यादि के रूप में दण्डित किया जा सकता है।	**Candidates should read the undermentioned instructions carefully. Violation of any of the following instructions may entail penalty in the form of deduction of marks, cancellation of candidature, debarment from further Examination of the Commission etc.**
1	(क) अपना पंजीकरण सं. एवं अन्य विवरण केवल प्रश्न-सह-उत्तर पुस्तिका (क्यू.सी.ए.) में उम्मीदवार के लिए निर्धारित स्थान पर ही लिखें। (ख) इस पुस्तिका में अन्यत्र कहीं भी अपना नाम, पंजीकरण सं., मोबाइल नं., पता अथवा प्रश्न-सह-उत्तर पुस्तिका (क्यू.सी.ए.) संख्या न लिखें जिससे आपकी पहचान का खुलासा हो।	(a) Write your Registration Number and other details only in the space provided in the Question-Cum-Answer (QCA) Booklet for candidates. (b) Do not disclose your identity in any manner such as, by writing your Name, Registration number, Mobile number, Address, Question-Cum-Answer (QCA) Booklet No. etc elsewhere in the Booklet
2	अपनी प्रश्न-सह-उत्तर पुस्तिका में कहीं भी प्रश्नों के वास्तविक उत्तर के अतिरिक्त कुछ न लिखें जैसे कि कोई कविता/दोहा, अभद्र या अपमानजनक अभिव्यक्ति इत्यादि और न ही कोई ऐसा चिन्ह/निशान बनाएं जिसका उत्तर से सम्बन्ध न हो।	Do not write in the QCA Booklet anything other than the actual answer such as couplet, obscene, abusive expression etc., nor put any sign/mark having no relevance to the answer.
3	परीक्षक को प्रत्यक्ष/अप्रत्यक्ष रूप से कोई भी प्रार्थना/धमकी भरी बातें न लिखें।	Do not make any direct/indirect appeal/threat to the examiner.
4	उत्तर अस्पष्ट अथवा गंदी लिखावट में न लिखें। इस प्रकार के उत्तर का मूल्यांकन नहीं भी किया जा सकता है।	Do not write answers in bad/illegible handwriting. Such answers may not be evaluated.
5	उत्तर स्याही में ही लिखें। उत्तर लिखने के लिए पेंसिल का उपयोग न करें, हालांकि आरेख, चित्र इत्यादि बनाने के लिए पेंसिल का उपयोग किया जा सकता है।	Write answers in ink only. Do not use pencil for writing the answers. However, pencil may be used for drawing diagrams, sketches, etc.
6	प्रवेश पत्र में उल्लेख किए गए माध्यम के अलावा अन्य किसी माध्यम में उत्तर न लिखें। अधिकृत और अनधिकृत की मिली जुली भाषा का भी उपयोग न करें।	Do not write answers in medium other than the authorized medium in the Admission Certificate. Do not use mixed language either i.e. authorize and unauthorized media together for writing answers.
7	प्रश्नों के उत्तर ठीक उसके नीचे दिए गए निर्धारित स्थान पर ही लिखें। निर्धारित स्थान के अलावा किसी अन्य स्थान पर लिखे गए उत्तर का मूल्यांकन नहीं किया जाएगा।	Write answer at the specific space (right below the question) only. Answers written elsewhere at unspecified places in the booklet shall not be evaluated.
8	यदि आप अपने किसी उत्तर को रद्द करना चाहते हैं तो उसे पेन से काट दें तथा उस पर "रद्द" लिख दें, अन्यथा उसका मूल्यांकन किया जा सकता है।	If you wish to cancel any work, draw your pen through it and write "Cancelled" across it, otherwise it may be valued.

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प्राप्तांक के विवरण (परीक्षक द्वारा भरा जाए)/ Marks Details (To be filled by the Examiner(s))

प्रश्न सं. Q. No.	अंक Marks		प्रश्न सं. Q. No.	अंक Marks	
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		
उप-योग (A) Subtotal (A)			उप-योग (B) Subtotal (B)		
सकल योग (A+B) / GRAND TOTAL (A+B)					

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सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2424)

निर्धारित समय: **तीन** घंटे Time Allowed: **Three** Hours	अधिकतम अंक: **250** Maximum Marks: **250**

प्रश्न-पत्र संबंधी विशेष अनुदेश

कृपया प्रश्नों के उत्तर देने से पूर्व निम्नलिखित प्रत्येक अनुदेश को ध्यानपूर्वक पढ़ें:

*कुल **बीस** प्रश्न दिए गए हैं जो **हिंदी** और **अंग्रेजी** दोनों में छपे हैं।*

सभी प्रश्न अनिवार्य हैं।

प्रत्येक प्रश्न/भाग के लिए नियत अंक उसके सामने दिए गए हैं।

प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए, जिसका उल्लेख आपके प्रवेश-पत्र में किया गया है, और इस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यू.सी.ए.) पुस्तिका के मुख-पृष्ठ पर निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिखे गए उत्तर पर कोई अंक नहीं मिलेंगे।

प्रश्न संख्या 1 से 10 तक का उत्तर 150 शब्दों में तथा प्रश्न संख्या 11 से 20 तक का उत्तर 250 शब्दों में दीजिए।

प्रश्नों में इंगित शब्द सीमा को ध्यान में रखिए।

प्रश्न-सह-उत्तर पुस्तिका में खाली छोड़े गए कोई पृष्ठ अथवा पृष्ठ भाग को पूर्णतः काट दीजिए।

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions.

*There are **TWENTY** questions printed both in **HINDI** and in **ENGLISH**.*

All questions are compulsory.

The number of marks carried by a question/part is indicated against it.

Answers must be written in the medium authorized in the Admission Certificate which must be stated clearly on the cover of this Question-cum-Answer (QCA) Booklet in the space provided No marks will be given for answers written in a medium other than the authorized one

Answers to Questions No. 1 to 10 should be in 150 words, whereas answers to Questions No. 11 to 20 should be in 250 words.

Keep the word limit indicated in the questions in mind.

Any page or portion of the page left blank in the Questions-cum-Answer Booklet must be clearly struck off.

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

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1. खाद्य सुरक्षा के विभिन्न आयाम क्या हैं? इन आयामों के मद्देनजर खाद्य सुरक्षा सुनिश्चित करने के संदर्भ में भारत की स्थिति का परीक्षण कीजिए। (उत्तर 150 शब्दों में दीजिए)

What are the different dimensions of food security? Examine India's status in terms of ensuring food security with regard to these dimensions. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidate must not write on this margin

Food security emulates the condition where every citizen has access to food at any point of time without any financial hardships.

Dimensions of Food Security

1. Availability : Food grain stocks to cater to the demands

2. Accessibility : food stocks need to be accessible to all.

3. Affordability : within the financial limit - people must be able to purchase food grains

4. Quality : Food grains need to satisfy the nutritional demand.

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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

India's status in terms of ensuring food security

Positives :

1) NFSA : Covers 67% of Total population — 75% rural, 50% urban

2) 5 kg ration to be available free (PM Garib Kalyan Yojana merged with PDS)

3) Food fortification (Rice) to tackle hidden hunger

4) Fair price shops - easily accessibility

Concerns
- → Global Hunger Index (2022) = 107/121
- → Malnutrition ≈ 34% (NFHS-5)
- → Retail Inflation hurting quality food security

Way Forward → Tackle Quantity as well as Quality of food grain.

Food security is not an act of charity rather an act of Justice.

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2. ब्लॉकचेन और चैटजीपीटी जैसी आधुनिक प्रौद्योगिकियां कृषि को अधिक कुशल और संधारणीय क्षेत्रक में बदलने की अपार क्षमता वाले शक्तिशाली साधन हैं। भारत के संदर्भ में चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)
Modern technologies such as blockchain and ChatGPT are powerful tools with immense potential to transform agriculture into a more efficient and sustainable sector. Discuss in the context of India. (Answer in 150 words) 10

उम्मीदवारों को इस मार्जिन में नहीं लिखना चाहिए
Candidate must not write on this margin

21st century has made rapid strides in evolution of technologies such as Blockchain and ChatGPT.

Immense potential to transform Agriculture

- **Efficient sector :-**

1) Mechanisation of Agriculture will be enhanced.
   - eg AI based drones

2) Evidence based policy making
   - eg BCT can handle and store large data
     - ↳ Agristack

3) Prevent wastage of inputs
   - eg AI-sensors : water use efficiency can be increased.

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4) Increase productivity :

(eg) Input less - Output more. → Increase income ~~pass~~ to farmers

5) Encourage scientification of Agriculture

II Sustainable Sector :

1) Employed in R&D of Agriculture

(eg) development of High Yield seeds

2) Climate Resilient Agriculture can be promoted

(eg) Monitoring moisture in soil.

3) Reduce soil pollution and groundwater table pollution

(eg) Sustainable ratio of fertilizer can be maintained : sensors - soil testing

4) Fertility of soil can be maintained

5) Double Income of farmer, production

Concerns → Cost
→ Adaptation

Moving forward Government needs to support Agriculture startups promoting BCT and AI technologies.

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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3. वैश्विक अर्थव्यवस्था में वि-डॉलरीकरण की प्रवृत्ति में हालिया तेजी के लिए कौन-से कारक उत्तरदायी हैं? क्या आपको लगता है कि डॉलर का प्रभुत्व जल्द ही समाप्त हो जाएगा? (उत्तर 150 शब्दों में दीजिए)
What factors have led to the recent acceleration in the trend towards de-dollarization of the global economy? Do you think the dollar will lose its dominance anytime soon? (Answer in 150 words)

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

De-dollarization refers to reduced use of dollars for settlement of international trade between countries

Factors that have led to de-dollarization

1) Russia-Ukraine war - sanctions imposed on Russia
   eg India-Russia trade settlement in ₹

2) Post-Covid era → Increasing protectionist policy. encouraging trade in local currency

3) U.S Fed Bank Tapering
   ↳ increased volatility of local currency vis-a-vis dollar

4) National Policies :
   eg New Trade (Foreign) Policy - encourages ₹ settlement.

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5) Intent to diversify the forex reserves.

(eg) Russia couldnot use the dollars in its forex during sanctions → discourages other economies.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Dollar May lose its dominance

→ countries are prefering trade settlement in local currency (eg) India

→ Bilateral negotiations to use common local currency (eg) India-SL negotiation towards rupee settlem

Yet will take time

① dollar still enjoys global acceptance

② finalising the value of currency between two local currency is marred with concerns of finding value.

③ Increasing use of Yuan as a common settlement.

Moving forward Indian Government should encourage trade settlement in ₹ to strengthen ₹ as a global currency.

4. विकसित देशों द्वारा भारत पर खाद्य सब्सिडी व्यवस्था में बदलाव करने के अत्यधिक दबाव के बावजूद, भारत के लिए निर्धन व्यक्तियों हेतु अपना नीतिगत समर्थन बनाए रखना एक उचित कदम होगा। विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)

Despite significant pressure from the developed countries to alter its food subsidy regime, there is merit in India trying to retain its policy support for the poor in the country. Discuss. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

India's food subsidy regime has been found violating WTO - AOA ~~Agre~~ Agreement (Amber Box limit).

Concern of developed countries (Pressure) : MSP and PDS regime is over and above 10% limit in accordance to AOA

↓

1) Frequent concerns raised by developed countries in WTO ministerial meeting

2) Temporary peace clause without any permanent solution.

India has Merit to retain its policy

1) 10% limit set under AOA lacks scientific evidence.

2) The amber box limit doesnot accomodate the inflationary trends

3) India's food subsidy is not to promote exports rather secure food security

4) India has largest poor population ≃ 230M under BPL (UNDP report

5) Development imperatives as well as Inclusive growth necessities.

Way forward

- Dialogue with like minded countries
- Secure permanent solution in 13th WTO ministerial conference
- Leverage G20 presidency in finding a middle path.

Food subsidy regime needs to continue as it caters to the needs of underdeveloped, poor and marginalised sections of society.

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
Candidates must not write on this margin

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5. भारत की जल संबंधी जरूरतों को पूरा करने की दिशा में सरकार द्वारा कई पहलों की शुरुआत की गई है, परंतु जल की उपलब्धता और जल की गुणवत्ता जैसे मुद्दों पर अभी भी नीतिगत हस्तक्षेप की आवश्यकता है। विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)

Several initiatives have been taken by the government towards addressing India's water needs, but the issues of water availability and water quality still warrant prioritised intervention. Discuss. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

India supports 18% of the world's population yet has access to only 4% fresh water thereby leading to concern of water scarcity.

Several initiative taken by Government

- Atal Bhujal Yojana
- Jal Shakti Abhiyan
- Har Ghar Jal
- Aquifer mapping & rejuvination.

Yet, the issue of

- Water Availability :-

1) 600 M is highly water stressed region [Niti Aayog]

2) ~ 21 cities will reach ground zero (with regards to ground water) by 2030.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

3) 66% depletion in groundwater table between (2007-2017) [Niti Aayog]

4) India uses 25% of global groundwater (UNDP) → increasing pressure of water availability

5) South India : lacks perenial source of H_2O
(eg) Karnataka - TN fight over Cauvery

II Water Quality

1) Water Pollution : Fluoride content increasing
(eg) Rajasthan

2) Organic pollution in surface water
(eg) Kaveri BOD ≃ 20mg/L
Godavari BOD ≃ 40mg/L
} Limit 3 mg/L

3) Only 40% of waste water generated is treated → these join river water

4) Increased disease & death due to H_2O contamination (eg) Cholera, diarea.

Way forward :- Increased Intervention of Jal Shakti, rationalise water tariff, Aquifer mapping and rejuvination, use treated waste water.

6. आर्कटिक में हिमनदों के पिघल कर संकुचित होने के लिए उत्तरदायी कारक क्या हैं? पारिस्थितिकी तंत्र पर आर्कटिक हिमनदों के पिघलने के संभावित प्रभाव का वर्णन कीजिए। (उत्तर 150 शब्दों में दीजिए)
What are the major drivers of glacial retreat in the Arctic? Describe the potential impact of the retreat of Arctic glaciers on the ecosystem. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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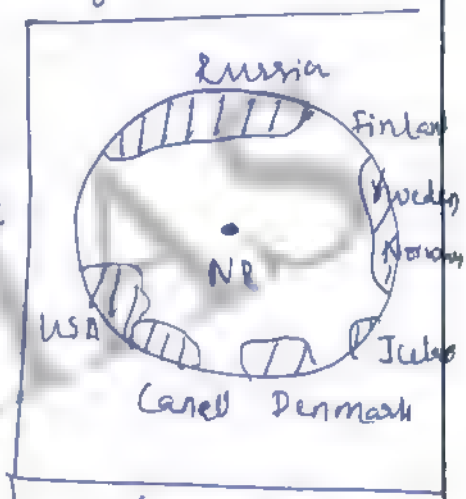
Recent IPCC report stated that Arctic ice is at the lowest level well below long term average.

Drivers of Glacial Retreat in glacial retreat in Arctic



Arctic Region

1) Global warming :-

- trigering melting of ice

2) Reducing albedo catalyses glacial retreat

3) Arctic Amplification

less ice → less albedo → greater absorption of heat → Arctic Amplification → melting → less ice

- triggering 2-3 times greater melting.

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4) Influence of Climate Change

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Potential Impact of retreat of Arctic glaciers

1) Melting of ice → increase in global mean sea level

eg WMO report : 0.2m rise in MSL (1908-2018)

2) Trigger weather extremities

eg flooding, cyclones.

3) Melting of ice → the dormant organisms in cryosphere will become active → vulnerability to new diseases

4) Floral-faunal impact - Polar animals such as dolphins threatened.

5) Impact global climate system

Way Forward : Treat Arctic as global common, leverage Arctic Council to protect Arctic ecosystem. Transparency in Arctic Missions

Global collective efforts are required to safeguard Arctic by limiting greenhouse gas emissions.

7. अंतरिक्ष पर्यटन, जिसे सीधे तौर पर एक साइंस फिक्शन फिल्म के रूप में देखा जाता था, अब बिना किसी बाधा के वास्तविकता बन रहा है। अंतरिक्ष पर्यटन से संबंधित चुनौतियां क्या हैं? इन चुनौतियों से निपटने के लिए क्या उपाय किए जा सकते हैं? (उत्तर 150 शब्दों में दीजिए)

Space tourism, which was viewed as something straight out of a science fiction movie, is now becoming a reality albeit not without hindrances. What are the challenges associated with space tourism? What measures can be taken to address these challenges? (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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Space Tourism as the name encapsulates refers to developing tourism potential via space.

Becoming a reality:
- Most countries have developed capacity to reach space & travel safely
- Reusable space launch vehicle
- Manned missions are in rise eg Gaganyaan

Challenges Associated with Space Tourism

1) Environmental : large scale of CO_2 emissions
   - trigger O_3 depletion

2) Economic : large investment required

3) Pollution (space) : increases space debris

4) Hinder space missions due to frequent movement of space vehicles

5) Security: security of travellers during the travel

6) Ethical: Is it judious to spend crores on space tourism which will cater only to small percentage of rich class?

Measures that can be taken

1) Treating space as global common

2) Equitable use of space resource

3) Greater accountability and transparency in space missions

4) Sustainability to be the core of space tourism.

5) Efficient mechanism to address safety concerns, debris concern.

Space tourism must be sustainable, equitable and reliable.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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8. वैश्विक स्वास्थ्य विशेषज्ञ व्यापक रूप से मानते हैं कि CAR-T सेल थेरेपी का विकास कैंसर के उपचार में एक बड़ी सफलता हो सकता है। CAR-T सेल थेरेपी, CRISPR-Cas9 तकनीक में व्याप्त कमियों को कैसे दूर कर सकती है? (उत्तर 150 शब्दों में दीजिए)

Global health experts widely believe that the development of CAR-T cell therapy can be a game changer in the treatment of cancer. How can CAR-T cell therapy overcome the limitations of CRISPR-Cas9 technology? (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Recently Indian scientists have developed CART-cell therapy to cater to cancer treatment

Blood cells removed from body → T cells modified (insertion of CART antigens) → CART-T → duplicated + multiplied in lab → administered back to patient

How CAR-T cell works.

can be a game changer :

1) As it has the capacity to treat the disease

2) Administration only once in lifetime

3) Body develops internal disease

resistance ability to treat Cancer

4) Prevent cancer deaths promoting healthy lifestyle.

CAR-T cell overcomes limitations of CRISPR-Cas9 technology in the following ways:-

CRISPR-Cas9	CART T
1) Changes in the cell structure within the body	1) Taken out and multiplied in lab
2) Acceptance by body is less	Greater and better acceptance
3) Sophisticated technology required	Simpler compared to CRISPR-Cas9
4)	One time administration

CAR-T Cell Therapy has the potential to transform cancer treatment hence greater R&D in this field is required.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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9. चर्चा कीजिए कि प्रमुख हिंसक चरमपंथी संगठनों द्वारा नई और उभरती प्रौद्योगिकियों के बढ़ते इस्तेमाल के विरुद्ध संगठित एवं ठोस वैश्विक प्रयासों की आवश्यकता क्यों है। (उत्तर 150 शब्दों में दीजिए)

Discuss why the rising deployment of new and emerging technologies by prominent violent extremist organizations demand concerted global efforts. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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The extremists groups are now turning to use emerging technologies to further catalyse their activities.

Emerging Technologies
- → BCT: Crypto currency
- → Darkweb: Drug Trading, Narco Terrorism
- → AI: deepfakes
- → Cyber breaches
  - eg Cyber Terrorism.

Challenges

1) deployment of technology →
- Promotes anonymity
- Promotes secretive missions

2) Allows cross border ~~impact~~ access
eg recruiting terrorists through social media operating from distant place

3) Increased vulnerability of all global ~~ecy~~ countries

eg cryptocurrency with global presency; Cyberrecurity breaches

Demand concerted Global Efforts

1) Easy to tackle the menace

eg FATF → Countering Terrorism

2) Collaborative efforts increases pressure on extremist group.

3) R&D towards tackling emerging technology

eg Recent India-US deal to tackle new nuances in technology

4) Efficient use of resource to curb extremism across globe

eg Interpol :

As Hon'ble Home Minister stated today there is shift from hawala to Crypto, dynamite to metaverse hence actions also need to transcend boundaries.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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10. गलवान और यांगस्ते की घटनाओं के बाद वास्तविक नियंत्रण रेखा (LAC) पर तनाव बना हुआ है तथा भारत एवं चीन दोनों सीमावर्ती क्षेत्रों में अपने बुनियादी ढांचों को सुदृढ़ कर रहे हैं। इस क्षेत्र में ITBP द्वारा निभाई जाने वाली भूमिका पर चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)

With the Line of Actual Control (LAC) remaining tense after the Galwan and Yangste incidents and both India and China ramping up infrastructure in the border areas, discuss the role that ITBP plays in the region. (Answer in 150 words) 10

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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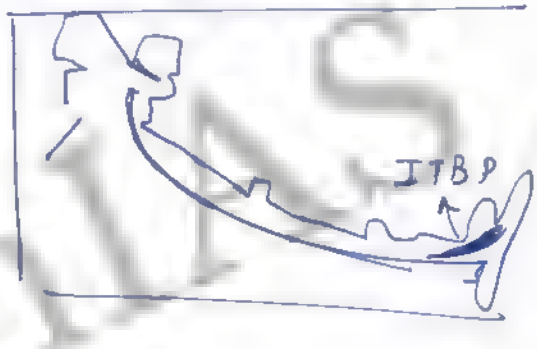
ITBP - border security force guarding the Indo China border along the LAC and MacMohan line (NE)



~~Both India and China~~ a

Role of ITBP

1) Securing the border
2) Contributing to safeguarding peace and tranquility in the region
3) Quintessential role in safeguarding sovereignty
   (eg) restricting China's expansion across borders.

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4) support developmental efforts

5) safeguard the interest of border population

6) Also encourage and provide security to tourists

eg Manasarovar Yatris

7) Specialised training to ITBP personnel

- help in attending to disasters in the himalayan region → landslide, glacial outburst

[Way Forward]

1) Faster infra development along LAC

eg leverage vibrant villages programme

2) Capacity building of ITBP personnel

Owing to the significant role, ITBP ~~profesit~~ personnel are called as HIMVEERS.

उम्मीदवारों को इस मार्जिन में नहीं लिखना चाहिए
Candidates must not write on this margin

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11. क्या आपको लगता है कि भारत को 'भूमि उत्पादकता' के सिद्धांत को छोड़कर 'सिंचाई जल उत्पादकता' के सिद्धांत को अपनाने की आवश्यकता है? अपने उत्तर का औचित्य सिद्ध कीजिए। यह बदलाव करने में कौन-सी चुनौतियां विद्यमान हैं? व्याख्या कीजिए। (उत्तर 250 शब्दों में दीजिए)
Do you think there is a need for a shift from 'land productivity' to 'irrigation water productivity' in India? Justify your answer. What are the challenges in making this shift? Explain. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Irrigation refers to the water supply catering to agricultural purpose.

Types
- sprinkler
- flood
- drip
- furrow
- basin

There is a need to shift from land productivity to Irrigation water productivity

1) Agriculture uses almost 80% of fresh water

2) Agriculture uses 60% of ground water

3) UN Report - India uses almost (25%) of world ground water increasing stress

4) Water use efficiency of flood irrigation ~ 35%

5) Flood irrigation employed for 77% of gross cropped area is leading to soil salinity

6) wastage of water → overuse by farmers.

7) Increasing climate change extremities - (eg) drought

[Challenges in making the shift]

1) The cost of other modes of irrigation such as micro irrigation is high.

2) Acceptance by farmers

3) There is no efficient methodology to assess the water required by different soils and cropped

4) Any variation may impact agricultural productivity

5) Populism (eg) free water to farmers (Free electricity in Punjab)

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Way Forward

1) R&D in Agriculture and Irrigation Technique

2) Incentives farmers

   eg DBT to microirrigation (Niti Aayog)

3) Global best practices : Israel Model

4) Use treated wastewater for irrigation

5) segerate feeder lines

6) Innovative Models :

   'Bhungroo (Gujarat) : rain water captured and used

7) Da

Steps Taken by Govt
- Har Khet ko Pani
- Per drop more crop
- Ken-Betwa river Interlinking
- Incentives to micro irrigation (PMKSY)

Increasing water productivity has capacity to increase farmers income, productivity and efficiency (Dalwai Panel)

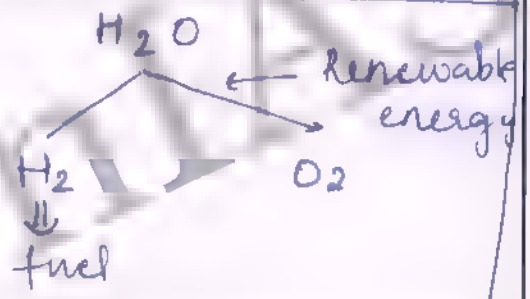
12. भारत की ऊर्जा सुरक्षा प्राप्त करने में हरित हाइड्रोजन की भूमिका का परीक्षण कीजिए। राष्ट्रीय हरित हाइड्रोजन मिशन, भारत की अपने ऊर्जा लक्ष्यों को प्राप्त करने में किस प्रकार मदद कर सकता है? (उत्तर 250 शब्दों में दीजिए)

Examine the role that green hydrogen can play in unlocking the energy security of India. How can the National Green Hydrogen Mission help India in achieving its energy goals? (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए Candidates must not write on this margin

India despite containing 18% of world population has access to only $\frac{1}{3}^{rd}$ of global energy, depicting gaps in energy security

Green Hydrogen :



Role of Green Hydrogen in unlocking energy security

1) Renewable source of energy

2) Immense Quantity of water available (7,500 km coastline)

IIT-M :- developed green hydrogen from salt water.

3) In lines with decarbonising the economy

4) Calorific value of green hydrogen is immense

- Green hydrogen ≈ 2/3 times of natural gas

5) Reduce import dependence → help us achieve self sufficiency in energy security.

National Green Hydrogen Mission helps India in the following ways

1) Target of generating 5MMT green hydrogen by 2030

2) Supports R&D in green hydrogen

3) Separate fund allocation addresses the financial constraints.

उम्मीदवारों को इस मार्जिन में नहीं लिखना चाहिए
Candidates must not write on this margin

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4) Vision to develop India as the global hub of green hydrogen

5) Targets : Generation - use as well as exports of Green hydrogen.

Way Forward

1) Support the ecosystem - financial aid

2) Personnel / Technical Capacity needs to be developed

3) International collaboration can be encouraged

4) Encouraged startups focussing on Greenhydrogen

Green hydrogen has the capacity to address the short term energy goals as well as long term decarbonising goals

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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13. हाल के दिनों में, सरकार न्यूनतम पारिश्रमिक की जगह जीवन निर्वाह पारिश्रमिक को अपनाने पर विचार कर रही है। भारत में जीवन निर्वाह पारिश्रमिक को अपनाने के लाभ और इसमें विद्यमान बाधाएं कौन-सी हैं? (उत्तर 250 शब्दों में दीजिए)

The government has been weighing a transition from minimum wage to living wage in recent times. What are the benefits and constraints in the adoption of living wage in India? (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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Minimum wage entails the basic amount payed for any job (Minimum wages Act) while living wage is similar to Universal Basic Income.

Benefits of Adoption of Living Wage

1) Each individual has access to minimum amount of income

2) Will address the basic needs which can be bought through living wage

3) Can timely accomodate the inflation trends in living wage than minimum wage.

4) has the capacity to address poverty as well as hunger

5) living wage will further increase consumption expenditure in the economy

6) Entails human right to basic income.

Constraints

1) Increased Pressure on Public Exchequer

2) No guarantee that living wage will be used to address basic needs

3) Increased govt expenditure towards revenue → compromise on other development goals

4) Increase Inflationary Pressure in economy.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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(eg) Free money being pumped.

5) The concern of political populism

(eg) Freebies in deciding the living wage.

Way Forward

1) Cost-Benefit analysis of living wage to be done before implementation.

2) Use of technology

(eg) CBDC → targetted spending limits on basic goods.

→ X amount → PDS

3) skill development of people to be the goal

living wage is a double edged sword, hence needs to deployed carefully.

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14. केंद्रीय बजट भारतीय अर्थव्यवस्था के लगभग हर क्षेत्रक को प्रभावित करता है, फिर भी न तो बजटीय प्रक्रियाएं पर्याप्त सार्वजनिक जांच के दायरे में आती हैं और न ही बजट नीतियां। क्या आप इस कथन से सहमत हैं? अपने उत्तर का औचित्य सिद्ध कीजिए। (उत्तर 250 शब्दों में दीजिए)

The Union Budget affects almost every sector of the Indian economy, yet neither the budgetary processes nor the budget policies come under substantial public scrutiny. Do you agree? Justify your answer. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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By virtue of Article 112, every year Annual financial statement (Budget) is laid in both houses of parliament on February 1.

Features of Budget
- revenue and capital expenditure details
- entire financial statement for a year
- Political + social + economic document.

However neither the budgetary processes nor budget policies are under public scrutiny

Budgetary Process.

* Formulation → Presentation → Passage
  (Economic Affairs Dept) (Finance Minister) (Lok Sabha)

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

- Formulation :

1) Secretive formulation

2) Budget mostly is increment made on previous allocation than based on outcome

- Presentation and passing

1) 70% of budget passed without discussion

2) Misuse of guillotine

3) Productivity of CAG, PAC, Estimates committee are post-mortem

Budget policies

1) reason for decrease in allocation is not stated

(eg) Agricultural Budget has reduced from 3.3% (FY. 22-23) to 2.8% (FY23 Budget)

2) reason for gap between revenue actuals and revenue estimates is not stated

3) lack of discussion in loksabha when ruling government enjoys brute majority

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Yet there is Public scrutiny, as

1) No money can be taken out of CFI without parliament's assent

2) Use of motions - cut motions to make adjustments.

3) CAG scrutiny on budget spending

(Eg) 87% nirbhaya fund not utilised (22)

4) Budget widely discussed in parliament as well as media.

Way forward

1) Greater participation in loksabha
2) Limit use of guillotine
3) Reason for gap between actuals and estimates to be provided in writing

Budget needs to become performance & outcome oriented with greater public scrutiny.

15. भारत स्वयं को दूध की कमी वाले देश से दुनिया के सबसे बड़े दूध उत्पादक देश के रूप में बदलने में सक्षम हो गया है, लेकिन देश में डेयरी पशुओं की उत्पादकता चिंता का विषय बनी हुई है। विवेचना कीजिए। (उत्तर 250 शब्दों में दीजिए)

India has been able to transform itself from a milk deficit country to the world's biggest milk producer, but the productivity of dairy animals in the country remains a concern. Discuss. (Answer in 250 words) 15

उत्तरपत्रों में इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Economic Survey 23-24,

stated that India has achieved global number one position with regards to milk production.

Transformation due to
- milk revolution
- encouraged milk cooperatives (eg) Amul
- Encouragement of Govt

Yet Productivity of dairy animals remains a concern

1) Increase in diseases in dairy livestock

(eg) Foot and Mouth disease

2) Traditional methodology employed

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lack of mechanisation in dairy

(Eg) Milking cattles, handling cowshed.

3) Access to veterinary services is still lacking in remote villages

4) lax implementation of livestock policies

5) Overemphasis on foreign breed than developing indigenous cattle

6) Unavailability of insemination techniques to increase the breed of productive dairy animals

Way Forward

1) Employ Technology in entire dairy supply chain

2) Encourage cooperatives

3) Development of Indigeneous Cattles

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
Candidates must not write on this margin

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with better dairy productivity

4) Access to veterinary services to be made easy, accessible, affordable & available.

Steps Taken by Govt

- extended benefits of Kisan credit card to Animal husbandry.
- Rashtriya Gokul Mission
- Separate Animal Husbandry Fund with allocation towards dairy sector

Significance of dairy sector - It can allow India to export dairy products, double farmers income and support rural economy. Thereby, holds greater importance to the country.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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16. जहां एक तरफ जलवायु परिवर्तन, फसल की विफलता के लिए जिम्मेदार है, वहीं दूसरी तरफ चरम मौसमी घटनाओं के लिए कृषि क्षेत्रक स्वयं आंशिक रूप से जिम्मेदार है। विवेचना कीजिए। भारत में कृषक समुदाय की प्रत्यास्थता को सुदृढ़ करने के लिए राष्ट्रीय कृषि आपदा प्रबंधन योजना के तहत क्या रणनीति अपनाई गई है? (उत्तर 250 शब्दों में दीजिए)

While climate change is responsible for crop failures, the agricultural sector itself is partly responsible for extreme weather events. Discuss. What strategy has been adopted under National Agriculture Disaster Management Plan to strengthen the resilience of the farming community in India? (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Agriculture sector in India employs ≃ 50% of labour force contributing to ≃ 18-20% towards the National GDP.

Climate change responsible for crop failures in the following ways:-

1) Climate extremeties

eg Floods in North India (2023) - Punjab Haryana crop loss

2) Monsoon variability

eg decrease in SW monsoon (2023) - drought in Karnataka.

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(3) Variation in weather and climate affects cropping season

eg delay in arrival of Kharif season.

(4) Proneness to disasters

eg Tropical Cyclones.

Agricultural sector itself is partly responsible

(1) Release of large quantity of Global warming gas

eg Flooded Agriculture field → Methanogens → Methane emissions

(2) Overuse of pesticides, fertilizers

eg Alters the soil ecology.

(3) Stubble burning → Airpollution

eg Addition of carbon dioxide

(4) Livestock and secondary agriculture contribute to carbon footprint

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Strategy Adopted under National Agriculture Disaster Management :

1) Prevent climate unfriendly agri-cultural practices

2) Encourage climate resilient Agriculture

3) Steps to rationalise the agricultural inputs - to reduce impact of agriculture on environment

4) standard Protocol developed to tackle agriculture disaster.

(5) Pest Attack, loss of crops.

Way Forward
- Agriculture R&D minimum 1% Agri GDP
- Develop climate resilient crops
- Mechanise agriculture to reduce green house gas emissions

Owing to greater climate extremities, reorienting agriculture is quintessential for agriproductivity and food security.

17. दिल्ली सहित भारत के कुछ क्षेत्र हिमालय में आने वाले भूकंपों के प्रभाव के प्रति अत्यधिक संवेदनशील हैं। विवेचना कीजिए। भारत में भूकंप से होने वाली हानि को कम करने के लिए कौन-से संस्थागत उपाय किए गए हैं? क्या आपको लगता है कि कुछ उल्लेखनीय कमियां अभी भी मौजूद हैं? (उत्तर 250 शब्दों में दीजिए)
Some regions in India, including Delhi, are highly vulnerable to the impact of earthquakes originating in the Himalayas. Discuss. What institutional measures have been taken to mitigate earthquake losses in India? Do you think there are significant gaps that still exist? (Answer in 250 words) 15

उम्मीदवारों को इस कॉलम में नहीं लिखना चाहिए
Candidate must not write on this margin

Almost 53% of India's land is prone to Earthquake (NDMA)

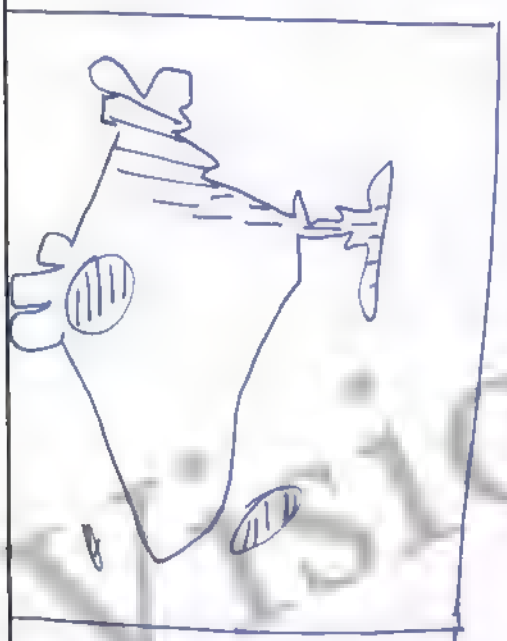

Fig: Earthquake Regions

Reasons for vulnerability

1) Continuous plate movement
- Indian plate towards Russian plate

2) Major parts of north India and North East India lie on the faultline

3) Himalayas being young mountains frequently undergo changes, reorientation
- triggering earthquake

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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

4) The habitat load on the fragile reason triggers earthquake

eg Joshimath - development > carrying capacity of the region

5) The slopes of himalaya are steep thereby increasing the impact of earthquakes in the region.

Institutional measures that have been taken up :-

1) IS-1893 → Code towards earthquake resilient buildings.

2) Rigorous mapping of the earthquake prone zones

3) Incentives towards earthquake resilient buildings eg In Gujarat post Bhuj earthquake.

4) NDMA guidelines are formulated.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Yet there are significant gaps

1) Rules of earthquake resilient building are seldom followed.

2) Despite vulnerability of region - haphazard development

3) large hydroelectric projects in himalayan zones

4) Earthquake is yet to become integral part of urban planning in India

Way forward

1) Banks to give home loans to buildings that incorporate earthquake resilience design in Zone-3 and 4

2) Global best practices : Japan

3) Use of Technology → sensor triggers warning in buildings.

Earthquake causes immense structural, economic & human loss hence needs to addressed with seriousness

18. हाल ही में, वैज्ञानिकों ने परमाणु संलयन अभिक्रिया में निवल ऊर्जा लाभ की घोषणा की है, जिसे स्वच्छ ऊर्जा के भविष्य के लिए एक बड़ी वैज्ञानिक सफलता माना गया है। परमाणु संलयन आधारित विद्युत उत्पादन के क्या लाभ हैं? व्यावसायिक स्तर पर विद्युत उत्पन्न करने के लिए इसके उपयोग की क्या सीमाएं हैं? (उत्तर 250 शब्दों में दीजिए)

Recently, scientists announced net energy gain in nuclear fusion reaction, which is considered as a major scientific breakthrough for the future of clean energy. What are the advantages of nuclear fusion based power generation? What are the limitations in using it to generate electricity at a commercial scale? (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Recently scientists based in USA announced net energy gain in a nuclear fusion experiment

Nuclear Fusion : O (deuterium) + O (tritium) → O (He) + Δ (energy)

Advantages of Nuclear Fusion

1) Immense Quantity of Energy released

eg 1kg fusion fuel = 100kg fossil fuel

2) Can address the global energy needs

3) Renewable energy source

4) A step towards decarbonising the economy.

5) Continuous energy generation (24x7) unlike solar and wind which are dependent on variable factors

6) When economy of scale is achieved - cheaper energy generation can be possible.

7) No nuclear waste

Limitations

(1) establishing nuclear fusion reactor very costly

(2) Cutting edge technology is needed

(3) Combining atoms requires high temperature and pressure similar to that in sun

(4) Very difficult to generate to cater to commercial scale

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidate must not write on this margin

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(5) Infrastructure development, procedural and technological advancements are cumbersome.

Way Forward

1) Collaboration between nations

eg ITER

2) developing greater nuclear scientists

3) Encourage R&D in nuclear science

4) Cost-Benefit Analysis & steps towards achieving economy of scale.

Nuclear fusion energy has immense capacity to transform the global energy security and pave path towards development

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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19. हालिया संशोधन को ध्यान में रखते हुए, भारत में धन शोधन (मनी लॉन्ड्रिंग) के खतरे से निपटने में धन शोधन रोकथाम अधिनियम, 2002 की प्रभावकारिता का परीक्षण कीजिए। (उत्तर 250 शब्दों में दीजिए)
Keeping in view the recent amendment, examine the efficacy of the Prevention of Money Laundering Act, 2002, in tackling the menace of money laundering in India. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Money laundering refers to techniques used to change money developed through illegal activities into legal money. That is: Converting dirty money to clean money.

Eg:- India → Black Money → Swiss Bank → Safe Havens → Investment through FDI

Money Laundering Example.

Menace of Money Laundering in India

1) Less than 10% NGOs file Income returns (CBI)

2) loss to the economy 1-2% GDP (IB report)

3) laundered money to fund anti-national activities.

4) develops a parallel economy affecting monetary policy

5) has ripple effects on society

eg corruption → income inequality → encourages anti social activities (naxalism)

Recent Amendment of PMLA, 2002

Features:

1) widened the ambit → NGOs, Journalists, administrative functionaries, cartoonists are within the scrutiny of PMLA

2) Prevents diversion of funds from one NGO to another

3) Checks on funding received from abroad

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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4) Increased accountability on NGOs and other Civil society institutions

5) Cap on administrative expense on NGOs (20%)

Efficacy in tackling money laundering

1) Greater transparency
2) Reduce the menace of money laundering
3) Increases the role of Govt
4) Ensure income to government (IT Tax)
5) Reduce vulnerability towards antinational activities

Wayforward

1) strengthen institutions: ED, CBI
2) Employ Technology to tackle money laundering using Crypto
3) Collaboration
4) Criminalising money laundering in accordance to Vienna & Palermo Convention will further increase efficacy of PMLA.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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20. हिंद महासागर क्षेत्र (IOR) में मौजूद उन सुरक्षा खतरों पर चर्चा कीजिए, जिनका भारत के समुद्री सीमा संबंधी हितों पर सीधा असर पड़ता है। इन खतरों से निपटने के लिए एक मजबूत रणनीति सुझाइए। (उत्तर 250 शब्दों में दीजिए)

Discuss the security threats present in the Indian Ocean Region (IOR), which have a direct bearing on India's maritime border interests. Suggest a robust strategy to deal with these threats. (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

India has a coastline of 7,500 km thereby increasing maritime security threats.

Significance of IOR

1) 90% goods in volume
70% goods in value passes through IOR
2) Border security
3) Unity and Integrity of the Nation
4) Trade interests
5) Geopolitical interests – Indopacific

Security Threats present in IOR

1) Terrorism : Infiltration of terrorists
eg 26/11 attack – terrorists via Gujarat coast

2) Drug trafficking :

eg From Golden triangle via Bay of Bengal towards north-east India

3) Smuggling of goods

eg From Arabian coast via ports smuggled goods enter India

4) Illegal migration

eg Srilanka - economic crisis → illegal migration towards TN

5) Sovereignity threats

eg China's string of pearl policy presence in IOR

6) Piracy - rampant in Indian Ocean region.

Robust strategy suggestion

1) Capacity building of maritime security forces → Coast Guard

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
Candidates must not write on this margin

2) Strengthen Indian Navy's capacity
- modernise the navy.

3) Fencing coastal borders

4) Collaborative Action
- Strengthen bilateral cooperation to tackle maritime threat
  - eg India - Srilanka

5) Increase accountability in trade via ports

Steps Taken
- Nuclear triad (Navy's capacity)
- Maritime Piracy Act recently passed
- Bilateral negotiations / Multilateral
  - eg Indo Pacific strategy.
- Modernising Coastal Guard.

Security along Maritime borders is quintessential to secure sovereignty, integrity, unity & development interest of the nation.

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ABHYAAS MAINS

सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2930)

निर्धारित समय: तीन घंटे
*Time Allowed. **Three Hours***

अधिकतम अंक: 250
Maximum Marks: 250

सामान्य अनुदेश

इस प्रश्न-सह-उत्तर (क्यू.सी.ए.) पुस्तिका में 55+1 पृष्ठ हैं। प्रश्न-पत्र, क्यू.सी.ए. पुस्तिका के अंत में सलग्न है, जो अलग (वियोज्य) किया जा सकता है और उम्मीदवार परीक्षा के उपरान्त अपने साथ ले जा सकते हैं।

रफ कार्य के लिए, इस पुस्तिका के अंत में खाली पृष्ठ दिया गया है।

पुस्तिका प्राप्त होने पर, कृपया यह जांच कर लें कि इस क्यू.सी.ए. पुस्तिका में कोई कमी न हो, फटा हुआ पृष्ठ न हो अथवा कोई पृष्ठ गायब न हो इत्यादि। यदि ऐसा हो, तो इसके बदले नई क्यू.सी.ए. पुस्तिका प्राप्त कर लें।

General Instructions

This Question-Cum-Answer (QCA) Booklet contains 55 + 1 pages. Question Paper in detachable form is available at the end of the QCA Booklet which can be taken away by the candidate after examination.

For rough work, blank page has been provided at the end of this Booklet.

On receipt of the Booklet, please check that this QCA Booklet does not have any shortcomings, torn or missing pages etc. If so, get it replaced with a fresh QCA Booklet.

(उम्मीदवार द्वारा भरा जाएगा/To be filled by the Candidate)

पंजीकरण सं./Registration No. : 01297803

अभ्यर्थी का नाम/Name of Student : ANUPRIYA

माध्यम: हिंदी/अंग्रेजी
Medium: ~~Hindi~~/English

English

तारीख
Date

सामान्य अध्ययन (प्रश्न पत्र-III)
GENERAL STUDIES (Paper III)

केंद्र
Centre

Bengaluru

निरीक्षक के हस्ताक्षर
Invigilator's Signature

	महत्वपूर्ण अनुदेश **उम्मीदवारों को नीचे उल्लिखित निर्देश सावधानी से पढ़ लेने चाहिए। किसी भी निर्देश का उल्लंघन करने पर उम्मीदवारों को मिलने वाले अंकों में कटौती, उम्मीदवारी रद्द या आयोग के परवर्ती परीक्षाओं के लिए वर्जित करने इत्यादि के रूप में दण्डित किया जा सकता है।**	**Important Instructions** **Candidates should read the undermentioned instructions carefully. Violation of any of the following instructions may entail penalty in the form of deduction of marks, cancellation of candidature, debarment from further Examination of the Commission etc.**
1	(क) अपना पंजीकरण सं. एवं अन्य विवरण केवल प्रश्न-सह-उत्तर पुस्तिका (क्यू.सी.ए.) में उम्मीदवार के लिए निर्धारित स्थान पर ही लिखें। (ख) इस पुस्तिका में अन्यत्र कहीं भी अपना नाम, पंजीकरण सं., मोबाइल नं., पता अथवा प्रश्न-सह-उत्तर पुस्तिका (क्यू.सी.ए.) संख्या न लिखें जिससे आपकी पहचान का खुलासा हो।	(a) Write your Registration Number and other details only in the space provided in the Question-Cum-Answer (QCA) Booklet for candidates. (b) Do not disclose your identity in any manner such as, by writing your Name, Registration number, Mobile number, Address, Question-Cum-Answer (QCA) Booklet No. etc. elsewhere in the Booklet
2	अपनी प्रश्न-सह-उत्तर पुस्तिका में कहीं भी प्रश्नों के वास्तविक उत्तर के अतिरिक्त कुछ न लिखें जैसे कि कोई कविता/दोहा, अभद्र या अपमानजनक अभिव्यक्ति इत्यादि और न ही कोई ऐसा चिन्ह/निशान बनाएं जिसका उत्तर से सम्बन्ध न हो।	Do not write in the QCA Booklet anything other than the actual answer such as couplet, obscene, abusive expression etc., nor put any sign/mark having no relevance to the answer.
3	परीक्षक को प्रत्यक्ष/अप्रत्यक्ष रूप से कोई भी प्रार्थना/धमकी भरी बातें न लिखें।	Do not make any direct/indirect appeal/threat to the examiner.
4	उत्तर अस्पष्ट अथवा गंदी लिखावट में न लिखें। इस प्रकार के उत्तर का मूल्यांकन नहीं भी किया जा सकता है।	Do not write answers in bad/illegible handwriting. Such answers may not be evaluated.
5	उत्तर स्याही में ही लिखें। उत्तर लिखने के लिए पेंसिल का उपयोग न करें, हालांकि आरेख, चित्र इत्यादि बनाने के लिए पेंसिल का उपयोग किया जा सकता है।	Write answers in ink only. Do not use pencil for writing the answers. However, pencil may be used for drawing diagrams, sketches, etc.
6	प्रवेश पत्र में उल्लेख किए गए माध्यम के अलावा अन्य किसी माध्यम में उत्तर न लिखें। अधिकृत और अनधिकृत की मिली जुली भाषा का भी उपयोग न करें।	Do not write answers in medium other than the authorized medium in the Admission Certificate. Do not use mixed language either i.e. authorize and unauthorized media together for writing answers.
7	प्रश्नों के उत्तर ठीक उसके नीचे दिए गए निर्धारित स्थान पर ही लिखें। निर्धारित स्थान के अलावा किसी अन्य स्थान पर लिखे गए उत्तर का मूल्यांकन नहीं किया जाएगा।	Write answer at the specific space (right below the question) only. Answers written elsewhere at unspecified places in the booklet shall not be evaluated.
8	यदि आप अपने किसी उत्तर को रद्द करना चाहते हैं तो उसे पेन से काट दें तथा उस पर "रद्द" लिख दें, अन्यथा उसका मूल्यांकन किया जा सकता है।	If you wish to cancel any work, draw your pen through it and write "Cancelled" across it, otherwise it may be valued.

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प्राप्तांक के विवरण (परीक्षक द्वारा भरा जाए)/ Marks Details (To be filled by the Examiner(s))

प्रश्न सं. Q. No.	अंक Marks		प्रश्न सं. Q. No.	अंक Marks	
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		
उप-योग (A) Subtotal (A)			उप-योग (B) Subtotal (B)		
सकल योग (A+B) / GRAND TOTAL (A+B)					

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सामान्य अध्ययन (प्रश्न पत्र-III)/GENERAL STUDIES (Paper-III) (2930)

निर्धारित समय: **तीन** घंटे Time Allowed: **Three** Hours	अधिकतम अंक: **250** Maximum Marks: **250**

प्रश्न-पत्र संबंधी विशेष अनुदेश

कृपया प्रश्नों के उत्तर देने से पूर्व निम्नलिखित प्रत्येक अनुदेश को ध्यानपूर्वक पढ़ें:

*कुल **बीस** प्रश्न दिए गए हैं जो **हिंदी** और **अंग्रेजी** दोनों में छपे हैं।*

सभी प्रश्न अनिवार्य हैं।

प्रत्येक प्रश्न/भाग के लिए नियत अंक उसके सामने दिए गए हैं।

प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश-पत्र में किया गया है, और इस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यू.सी.ए.) पुस्तिका के मुख-पृष्ठ पर निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिखे गए उत्तर पर कोई अंक नहीं मिलेंगे।

प्रश्न संख्या 1 से 10 तक का उत्तर 150 शब्दों में तथा प्रश्न संख्या 11 से 20 तक का उत्तर 250 शब्दों में दीजिए।

प्रश्नों में इंगित शब्द सीमा को ध्यान में रखिए।

प्रश्न-सह-उत्तर पुस्तिका में खाली छोड़े गए कोई पृष्ठ अथवा पृष्ठ भाग को पूर्णतः काट दीजिए।

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions.

*There are **TWENTY** questions printed both in **HINDI** and in **ENGLISH***

All questions are compulsory

The number of marks carried by a question/part is indicated against it

Answers must be written in the medium authorized in the Admission Certificate which must be stated clearly on the cover of this Question-cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in a medium other than the authorized one.

Answers to Questions No. 1 to 10 should be in 150 words, whereas answers to Questions No. 11 to 20 should be in 250 words.

Keep the word limit indicated in the questions in mind.

Any page or portion of the page left blank in the Questions-cum-Answer Booklet must be clearly struck off.

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

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1. खाद्य प्रसंस्करण उद्योग का तीव्र विकास किस प्रकार भारत में खाद्य सुरक्षा संबंधी चुनौतियां उत्पन्न कर रहा है? (उत्तर 150 शब्दों में दीजिए)

How is the rapid growth of the food processing industry leading to food safety challenges in India? (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Food Processing Industry - caters to the value addition to the agri produce as well as increases the shelf life of the product

Rapid Growth of Food Processing Industry
→ Sunrise sector
→ Year on Year Growth - ≥ 10%
→ Active steps taken by Govt - PMSAMPADA - 100% FDI

↓

16% of Agri exports from India constitute processed food

The rapid growth - is leading to food safety challenges in the following ways :-

1. Decreased Quality checks - leading to substandard food (processed) articles in the market

   Ex European market → MDH masala alleged to contain harmful chemicals

2. Illegal food processing sectors operating

without permission

↳ Recent raids in Punjab-Haryana on food processing companies

3 Lax Implementation of law

4 Insufficient Quality check Institutions to cater to the rising demand in food processing Industry

Negative outcome
- → Phytosanitary barriers in export market
- → Taints the image of India as a reliable Agri exporter
- → Long term harm to the interests of farmers

Negative health outcomes

Way Forward
- Target Quantity + Quality
- PPP - Quality Check Centres
- Frequent Monitoring by Govt Agencies
- Proactive regulation

Food processing Industry needs to balance the food safety parameters for long term gain and doubling farmer income.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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2. भारत की सार्वजनिक वितरण प्रणाली के अंतर्गत उचित मूल्य की दुकान (FPS) का प्रारंभ एक विकासशील प्रक्रिया है। विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)
Under the Public Distribution System of India, the Fair Price Shop (FPS) transformation is an evolving process. Discuss. (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Public distribution system is the core aspect of 'right to food initiative' (NFSA) catering to 75% of India's population

Centre procures from farmer @ MSP → Allocates to state → distributes to → Fair price shop → customers/consumers

Fig: Flowchart of PDS

Fair price shop Transformation is an evolving process

- Traditional Methodologies of FPS

1) Weight measurement lacunae → corruption → deviation/leakages

2) Consumers were not informed regarding the arrival of ration
↳ Non-inclusive

3) Problem of rodents → unhygiene / compromised food safety
food loss

उम्मीदवारों के इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Present evolved methodologies in FRP

1. Integration of Technology
   - Eg. Biometric ration card
     - prevents leakages and deviation
2. Digitized Measuring Instruments
3. Mobile Number Integration to Fair Price shop (in many states) – notification on arrival of food grains
4. Consumers treated as Active Customers than Passive recipients
5. One Nation One Ration Card – Increased Inclusivity

Case Study: Chandigarh FRB Model

- Govt run FB (No private partners)
- Grievance redressal mechanism
- Real time updates on stocks in FPS

Transforming FPS is indispensable towards achieving SDG-2-Zero Hunger – more technology integration is advisable.

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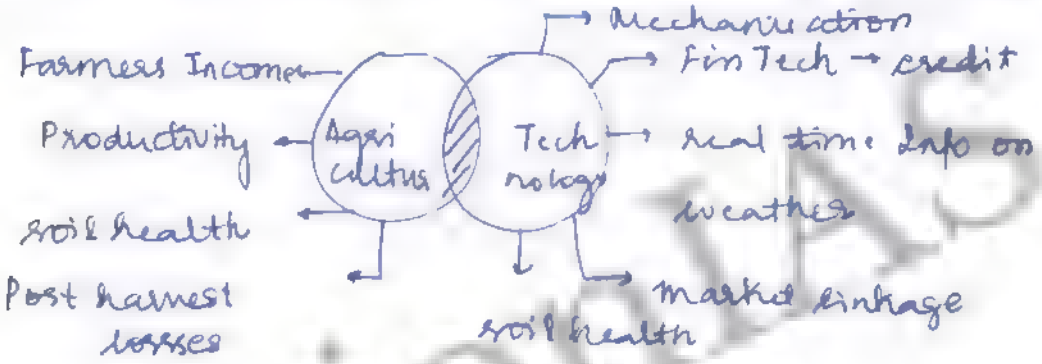
3. भारत में एग्रीटेक स्टार्ट-अप्स किसानों की कृषि उत्पादकता एवं बाजार पहुंच बढ़ाने में किस प्रकार मदद कर रहे हैं? (उत्तर 150 शब्दों में दीजिए)

How are agri-tech startups in India helping farmers in enhancing farm productivity and market access? (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Agri-Tech startups integrates the advancements in technology ~~towards~~ supporting agricultural productivity - yield, soil health. agri marketting ~~reforms~~ networks.



Agri Tech startups — helping farmers in

(1) Farm Productivity :-

1. Mechanization of Agriculture
   (e.g.) Happy seeder - easy harvesting in sustainable manner (stubble)

2. Real time information regarding the weather (monsoon, heat)
   ↳ helps farmer plan harvest & sowing

3. Advancements in microirrigation & making it available in lesser cost

Eg. Low cost sprinkler irrigation setup

4. Agristartups involving in R&D — climate resilient high yielding seeds

② Market Access

1. Upstream and downstream linkages

Eg. Technisane : Integrated Araku Vallay coffee farmers to walmart retail network

2. Preventing distress sale by providing updates on value of agri produce in real time

3. Greater choices to farmers to sell their goods across the country

Eg. Retail hubs → Bigbasket, Blinkit, Mother dairy

Steps that need to be Taken

→ greater allocation under Priority Sector Lending

greater incentives to agri startups

Agri Tech startups will enable us to achieve – Doubling farmers income

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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4. भारत में भूमि सुधारों के प्रभावी कार्यान्वयन में भूमि अभिलेखों के डिजिटलीकरण की भूमिका पर चर्चा कीजिए। (उत्तर 150 शब्दों में दीजिए)

Discuss the role of digitization of land records in the effective implementation of land reforms in India. (Answer in 150 words) 10

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
Candidates must not write on this margin

Land reforms has been the objective of Govt of India since the Independence

objectives of Land Reforms
- → land ceiling
- → land consolidation
- → preventing accumulation of land under few → rather distribution

Role of digitization of land records in effective Implementation of Land Reforms

Land record digitization

- ↳ converting the paper based (hard copy) land sale-deeds into digital form
- ↳ all cadastral maps are to be converted into digital format

How it will help in land reforms

1. Reduce land litigation → by digitizing the ownership record

2. Facilitate land pooling

Land Banks ← Land piece 1, Land piece 2 } based on digital records

3. digitising land parcels will encourage corporate farming

4 Prevents Benami land acquisition and transaction

5. Makes it easier for the govt to acquire land for development process

Steps Taken by Govt
- National Land Record Digitizing Mission
- UL-PIN - unique pin generated for land parcels
- Svamitva → drone mapping

≥ 90% of saledeeds in Indian panchayats have been digitised

Moving forward - amplifying the process of digitization; learning from best models - BHOOMI portal Karnataka should be undertaken

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
Candidates must not write on this margin

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5. भारत को अपने जनसांख्यिकीय लाभांश का पूर्ण उपयोग करने और आर्थिक विकास में तेजी लाने के लिए एक विनिर्माण-केंद्रित विकास मॉडल को अपनाने की आवश्यकता है। विवेचना कीजिए। (उत्तर 150 शब्दों में दीजिए)

To fully exploit its demographic dividend and accelerate economic growth, India needs to adopt a manufacturing-led growth model. Discuss. (Answer in 150 words) 10

उम्मीदवारों को इस मार्जिन में नहीं लिखना चाहिए
Candidates must not write on this margin

According to UN report. 70% of India's population will be in working age group by 2030, thereby providing the benefit of demographic dividend

Need for Manufacturing led Growth Model

1. Job elasticity in India = 0.2%
   i.e for every 1% rise in GDP - 0.2% Job is created in the market

2. Overemphasis on service sector has not been able to accomodate the employment need of the society
   ↳ Service sector - employs 30% population only

3. According to Economic Survey-2024 India needs to generate 78L+ Jobs annually to accomodate rising working population till 2030

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

How Manufacturing led growth Model will exploit demographic dividend :

- Large Number of employment can be generated (eg. MSME - 11CM Jobs in India
- Exploit the gap in world market due to China + 1 strategy
- The advancements in Technology (AI, ML) supports the increasing demand in manufacturing
  - automation
  - Need for hardware
- unlock the potential
  - Make in India
  - Better exports
  - Market Integration

Way Forward

1) Formalise MSME
2) Greater Incentives under Production linked Incentive Scheme (PLI)
3) Focus on skill development and accademic - Industry linkage

As exposed by Economic Survey - Manufacturing is the ray of hope towards Increasing demographic dividend

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6. जलवायु परिवर्तन के परिणामस्वरूप बढ़ते प्राकृतिक खतरों से निपटने के लिए भारतीय तटीय समुदायों की प्रत्यास्थता को किस प्रकार मजबूत किया जा सकता है? (उत्तर 150 शब्दों में दीजिए)

How can the resilience of Indian coastal communities be strengthened to tackle the growing natural hazards resulting from climate change? (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

According to IPCC report -AR6-

there has been 4-5 mm yearly rise in mean sea level since 2008. And WMO report states 0.2M rise has already been seen.

Vulnerability landscape of India
- → 7500 km coastline
- → Prone to 10% of all Tropical cyclones
- → Mean sea level rise → coastal submergence

Yearly 5/6 cyclones due to climate extremities

Natural Hazards From climate Change
- → coastal flooding
- → cyclones / Tsunamis
- → landslide / landslip in windward slopes (Western Ghats)
- → Saline incursion due to mean sea level rise / coastal submergence.

Heat waves → Marine life death → Impacts Fishing.

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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

How to build Resilience

1) Anchor walls / retention walls - reducing the impact of cyclones

2) Better weather forecasting → early warning signs → prediction
↓
Zero Casualty

Cyclone Fani — Not a single casualty in India

3) Community Participation → 2nd ARC — local bodies to be empowered as first line of action

4) Aapda Mitra - training of volunteers in coastal region.

5) Cooperative action — Towards SDG — Centre / Local Body — State

Resilience - Adaptation - Mitigation should be the way forward.

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7. भारत में अधिक संधारणीय पर्यावरण को बढ़ावा देने के लिए ग्रीन क्रेडिट प्रोग्राम किस प्रकार कार्बन प्रबंधन से कहीं अधिक विस्तृत है? इसके कार्यान्वयन के संबंध में विभिन्न चिंताएं क्या हैं? (उत्तर 150 शब्दों में दीजिए)

How does the Green Credit Programme extend beyond carbon management to promote a more sustainable environment in India? What are the various concerns about its implementation? (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

Green Credit Programme envisions extending credit line towards green projects

↳ renewable energy - solar, wind.

green infrastructure

↳ green highways

How it goes beyond Carbon Management

1. Focuses not on Adaptation and Mitigation

2. Not merely carbon management rather envisages to build resilience

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3. Green Projects → prevents the carbon emissions addressing larger problem of global warming and climate change

Concerns
- short term development needs that requires credit
- greenwashing
- Financing limitations

Steps Taken
- Sovereign green bond
- ISL

Green Credit Programme is the hope for 'Green Tomorrow'.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
Candidates must not write on this margin

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8. जब पहले से ही अन्य उपग्रह नेविगेशन सिस्टम उपलब्ध हैं, तो NavIC की आवश्यकता क्यों है? (उत्तर 150 शब्दों में दीजिए)

What is the need for NavIC when existing satellite navigation systems are already available? (Answer in 150 words) 10

उम्मीदवारों को इस क्षेत्र में [redacted]

Candidates must not write on this margin

NavIC incorporates a network of satellites
- → 4 in geosynchronous
- → 3 in geostationary

thereby aids in Navigation providing specific details.

Need for NavIC

1. NavIC has two separate components
   - General → common people
   - Services/Military assistance → provides important details to defence force

2. NavIC is broad compared to hitherto navigation systems

   i.e: 1500 km beyond the country's

boundary

3. NaVIC is more technologically advanced and capable

→ remote sensing capabilities gathers tiniest detail

Helpful In
- railway navigation
- details for defence forces
- Border security

details useful in disaster management

NaVIC - transformative potential in achieving Indigenous GPS.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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9. साइबर-सक्षम वित्तीय अपराध वैश्विक धन शोधन (मनी लॉन्ड्रिंग) के नए क्षेत्र के रूप में उभरा है। चर्चा कीजिए। सरकार इस मुद्दे का समाधान किस प्रकार कर सकती है? (उत्तर 150 शब्दों में दीजिए)

Cyber-enabled financial crime has emerged as the new frontier of global money laundering. Discuss. How can the government address this issue? (Answer in 150 words) 10

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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Britain Banks lost £1.2 B due to cyber-enabled financial crime in FY-2019. highlighting the threat it poses as a anew frontier of global money laundering

Tools / Techniques used as the edge in provides towards global money laundering

1. Transaction in Cryptocurrency - hides the origin of the financing network

2. Block Chain Technology used towards funding terrorism - hides the transaction from investigating agency

3. Cyber connectivity facilitates global connect courtesing the distance

Eg cyber fraud operating from China targetting USA.

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4. Cyber frauds → cyber whaling, ransomware attacks on Banks

- as a money laundering tool

Eg. Microsoft >57% Banks and large HNCs targetted via cyber financial frauds

[How the Government can Address this]

Domestic → regulatory Mechanism

Eg. 30% Tax on virtual digital asset

→ Foolproof cyber Protection

Building Institution

- CBI, ED capable to deal cyber-financial crime.

International → global cooperation

→ Institutions such as FATF can be approached

Bilateral & Multilateral Solutions

Eg. G20 - pillars addressed cyber security Breaches

As Hon'ble Home Minister stated - today there is shift from 'Hawala money to Crypto' thereby our actions should also 'Transcend Borders'

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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10. इंडियन आर्मी वर्ष 2024 को 'प्रौद्योगिकी समावेशन वर्ष (Year of Technology Absorption)' के रूप में मना रही है। इसके आलोक में, स्पष्ट कीजिए कि भारत के रक्षा क्षेत्रक में प्रौद्योगिकी के समावेशन की आवश्यकता क्यों है। इस पहल में भारत को किन चुनौतियों का सामना करना पड़ सकता है? (उत्तर 150 शब्दों में दीजिए)

The Indian Army is observing the year 2024 as the 'Year of Technology Absorption'. In light of this, explain why there is a need for technology absorption in the defence sector of India. What challenges can India face in this initiative? (Answer in 150 words) 10

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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Digital Darwanism has made inroads into the realm of defence sector – precision guided missiles, AI assisted UAVs, sensors and radars.

Why there is a need for Technology absorption in the defence sector:

1. Increasing unconventional warfare
   - cyber attacks
   - Fourth Generation of warfare

   Eg. Algerian hackers tried breaching DRDO website

2. To get an edge in Asymmetric warfare

   Eg. Russia and Ukraine both have an edge in defence technological prowess compared to opposite countries

3. To increase the efficiency of the defence forces

Eg Precision guided missiles

4. Reducing the 'human cost' in war

Eg Iron dome of Israel

Unmanned Aerial Vehicles guided by AI

5. Improving decision making skills and planning

Eg data management

6. Protecting critical Infrastructure amidst militarisation of space & space weaponisation

Eg

What are the Challenges?

(1) Financial limitations as India is still a developing country Eg China defence budget 5-7 times more than India

(2) Cybersecurity Threats - India most targetted nation (Cyber Threat Landscape Report)

Moving forward - greater private participation

- R&D in defence Tech manufacturing is necessary.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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11. भारत के पूर्वोत्तर क्षेत्र (NER) में व्यापार एवं उद्योगों के विकास में किन समस्याओं का सामना करना पड़ा है? इन समस्याओं से निपटने हेतु किए गए उपायों पर टिप्पणी कीजिए। (उत्तर 250 शब्दों में दीजिए)
What are the issues faced in the development of trade and industries in the North-Eastern Region (NER) of India? Comment on the measures that have been taken to tackle these issues. (Answer in 250 words) 15

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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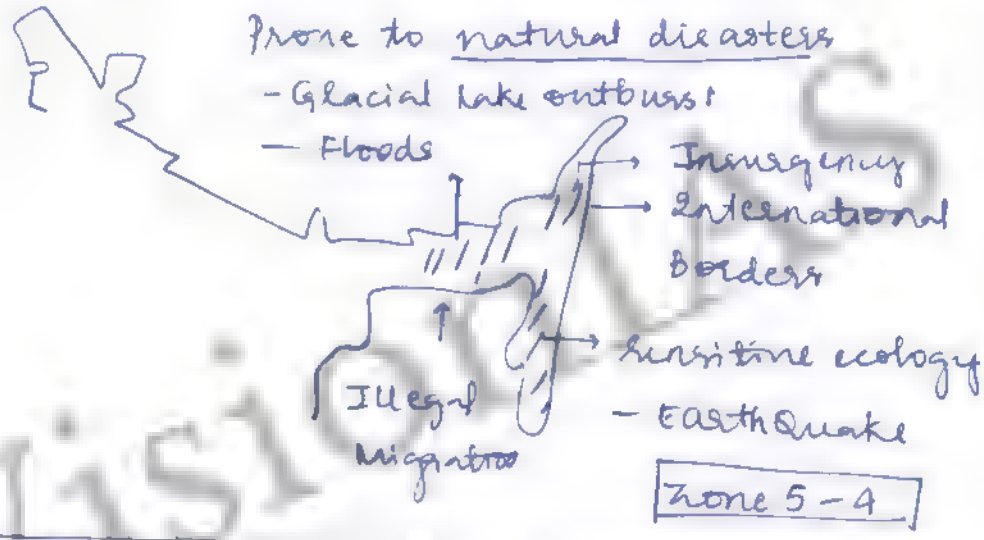
North Eastern region of India has been deprived of Industrialisation benefits since time immorial in India



(Fig) Issues faced in NorthEast Region India

- Issues faced in the development of trade and Industries in NER

1. Geography and Ecology :

1.1. EarthQuake Prone - doesnot encourage large scale Industry Construction

1.2 : Sensitive ecology

- Himalayan slopes are sensitive to landslide
- the Terrain in the region - rugged forest do not provide plain area for construction

2. Integration and connectivity

2.1: Chicken Neck corridor is the only way of connectivity b/w NER & mainland India

2.2: Increased logistic cost discourages prime industries

3. Socio-cultural reasons

3.1 Frequent ethnic disturbances (Eg Manipur riot

3.2: Lack of skilled manpower availability is limited in NER.

4. Security reasons

4.1. Increased cases of → insurgency, → drug trafficking, → arms smuggling → disincentivises the private.

II Measures that have been Taken

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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- 10% allocation in budget of every scheme is provided to NER
- Policies like : UNNATI → support Industrialisation
- Initiatives : NESIDS → that focuses on economic development in the region
- connectivity : connecting NW1 (Ganga) & NW3 (Brahmaputra); Tripura-Bangladesh rail link

Lacunae
- still the potential in NER is not unlocked
- Incapable to attract private Industrialists to the region
- Platforms like BIMSTEC, SAARC has not been used proactively

As PM Modi stated - NER is the gateway to India and not its end thereby increased focussed on the economic side is indispensable towards overall development.

12. जलवायु परिवर्तन और बढ़ते जल संकट के युग में, सूक्ष्म सिंचाई प्रणालियां भारत में संधारणीय कृषि पद्धतियों में किस प्रकार योगदान दे सकती हैं? (उत्तर 250 शब्दों में दीजिए)

In the era of climate change and growing water scarcity, how can micro-irrigation systems contribute to sustainable agricultural practices in India? (Answer in 250 words) 15

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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According to NITI Aayog - Composite water management report - 600 M people in India live in highly water stressed region.

Agriculture $\xrightarrow[\text{VIS}]{\text{Vis-a}}$ water scarcity

1. 80% of fresh water used in Agriculture
2. efficiency of flood Irrigation (mostly practiced) → 35-40%
3. 52% agricultural land is water fed - prone to climate vagaries

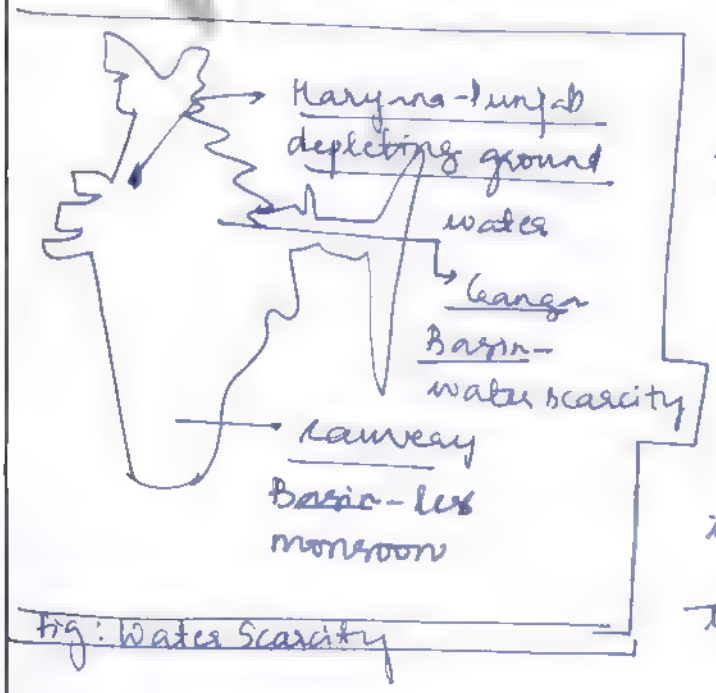


Fig: Water Scarcity

Impact of climate change :

1) Unseasonal monsoon

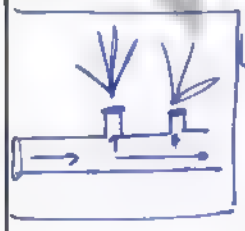
2) El-Nino frequency is increasing leading to drought condition

3- 631 districts in India went from water deficit to water surplus in 1 month (FY-2023) due to irregular rain.

How Micro-Irrigation systems can contribute to sustainable Agricultural practices

Micro Irrigation systems - uses modern methodologies such as drip irrigation, sprinkler towards increasing the water use efficiency

1. Facilitates fertigation - [ie] fertilizers mixed with water via drip irrigation setup



→ Misuse of fertilizer ratio (7:4:1) can be avoided

→ safeguards soil fertility

2. water use efficiency of

Drip Irrigation — 85-90%

Canal - Flood Irrigation — 35-40%

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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3. Dalwai Panel observation

Micro Irrigation
- → 40% decrease in water consumption
- → 45% Increase in productivity
- → 50% Increase in farmers Income

Case study Malkhangiri - MP.

Microirrigation technique used by small marginal farmers
- → 2 crops grown in a year → rice, groundnut
- → ₹50,000 - 80,000 increase in farmers income

Micro Irrigation is indispensable towards ~~tackling~~ achieving climate resilient agriculture - doubling farmers Income.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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13. भारतीय रेलवे में माल परिवहन से संबंधित समस्याओं का समाधान करने तथा घरेलू माल ढुलाई में इसकी हिस्सेदारी बढ़ाने के लिए कौन-सी रणनीतियां अपनाई जा सकती हैं? (उत्तर 250 शब्दों में दीजिए)

What strategies can be adopted to overcome the issues pertaining to freight transportation in the Indian Railways and increase its share in the domestic freight? (Answer in 250 words) 15

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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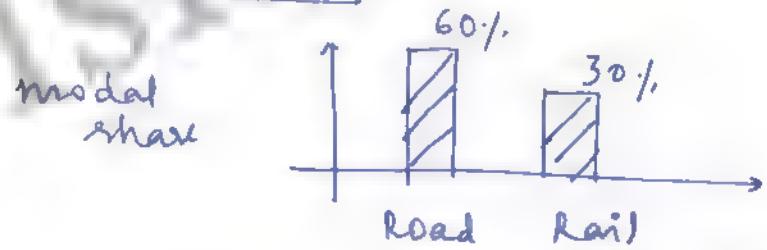
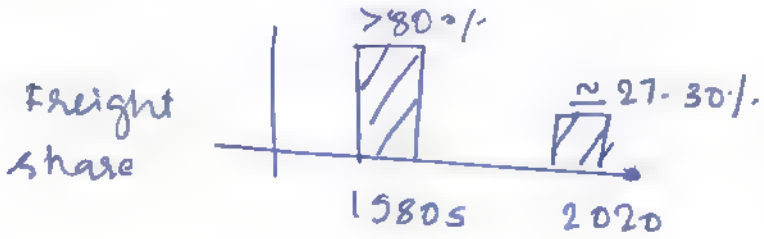
Indian railways is the 4th largest railway network in the world. and plays a central role in transportation network - especially freight transportation.

Present Issues pertaining to Freight Transportation in Indian railways

1. Skewed modal share



2. Decreasing freight share over the years



3. Cross subsidisation due to populism impacting freight share

compensation.

i.e: Less price of ticket (people) → High price of freight transport

4. Inefficiency at terminals
   - loading and unloading
   - Time taken is more
   - complain of breakage / theft by consumers / customers

What strategies can be Adopted

1. Faster completion of Dedicated Freight Corridor

2. Sign MOU's with corporation / Industries towards freight transport
   ex West-dedicated freight corridor —MOU→ Annual Industries

3. Increase Independence to railway authories to fix price, prevent popnlism
   → Bibek Debroy Committee : Railway Regulatory ~~Body~~ Board

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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4. Attract private players at terminal loading and unloading activities.

5. The average speed of freight trains needs to be increased in accordance to the RAFTAAR Mission

Steps Taken by Govt

- Railway Budget has been increased ⇒ 2.6 LCr
- Dedicated Freight Corridor < east, west
- Gatishakti Masterplan
- Modernisation of railways keeping in mind the intent to increase freight.

Benefit of Freight by Railway v/s Road

₹ 3/Tonne	Road
₹ 1.5/Tonne	Railways

Transforming railways will enable us to increase the export potential and proactively support economic development in the country.

14. उन कारकों पर चर्चा कीजिए जिन्होंने नवीकरणीय ऊर्जा क्षेत्र में प्रभावशाली प्रगति करने और वैश्विक नवीकरणीय ऊर्जा परिवर्तन में अग्रणी के रूप में स्थापित होने में भारत की सहायता की है। (उत्तर 250 शब्दों में दीजिए)

Discuss the factors that have aided India in making impressive strides in the renewable energy sector and establishing itself as a frontrunner in the global renewable energy transition. (Answer in 250 words) 15

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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India stands at 4th position globally with respect to the renewable energy generating capability

Impressive strides in the renewable energy sector made by India - is as follows

Power Ministry FY-23
1- 43.7% Installed Capacity from Renewable Energy
2- 45% power generating capacity via non-fossil fuels
3- 85GW - Solar energy

The Factors that have Aided India

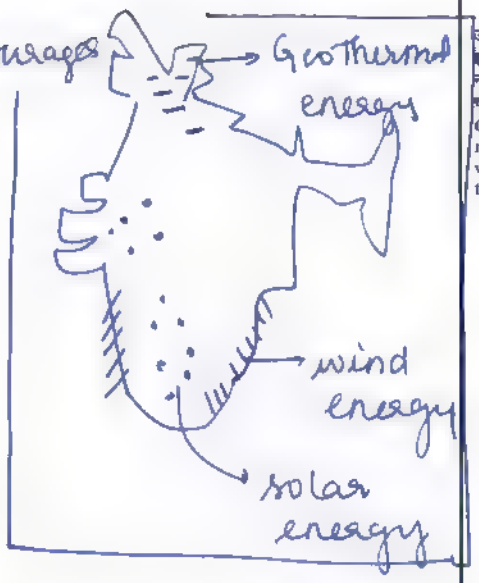
1. Geographical Advantage :-

(a) Tropical Country - encourages solar energy generating capacity

(b) Coastline of 7500 km encourages wind energy generation.

→ Himalayan region - encourages geothermal energy

(Eg) Puga - Ladakh



उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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2. Agriculture economy
- rural regions has supported bio-energy

↳ 350-400 M Tonnes of Agriwaste generated in India → bioenergy (Gobardhan scheme)

3. Skilled manpower → startups; Industries that are able to harness the potential in skilled manpower/personnel

4. Active steps taken by Govt.

Policies: - PLI for Renewable sector
- Liberalised FDI norms
- PSL (Priority Sector lending)

Schemes - National Solar Mission,
National wind energy Mission
PM JIVAN

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As a consequence established Intself as a frontrunner in global energy transition

Global leader
- 4th renewable energy generation
- 5th solar energy generation
- 4th wind energy generation
- Global Initiatives : One Sun - One World - One Grid
  - Global Biofuel Alliance (G20)

Concerns / Shortcoming
- cost of renewable energy production is still high compared to coal
- Irregularity → solar energy
- Need for empty land parcels
  - 60 – 20MW solar energy generation needs 1 km² land

Moving forward - greater PPP based models, Innovation towards increasing self sufficiency (solar panels) is required to accomodate the growing energy needs within the decarbonising goals.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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15. उर्वरकों और कीटनाशकों से युक्त कृषि अपवाह पर्यावरण प्रदूषण में किस प्रकार योगदान देता है? कृषि अपवाह के प्रभाव को कम करने के लिए क्या उपाय अपनाए जा सकते हैं? (उत्तर 250 शब्दों में दीजिए)

How does agricultural runoff containing fertilizers and pesticides contribute to environmental pollution? What measures can be taken to mitigate the impact of agricultural runoff? (Answer in 250 words) 15

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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Green revolution in India -

witnessed the increasing use of fertilizers and pesticides - towards increasing the yield, reducing unwanted weed, safeguarding the crops from diseases.

Overuse of Fertilizer/ Pesticide → Ratio of fertilizer NPK ratio 7:4:1 against desirable 4:2:1

→ overuse of pesticide contributing to microbial resistance → crop disease continues

chemical fertilizers has reduced natural soil fertility in long term.

How Agricultural runoff → contributes to environmental pollution :

1. carries the unwanted excessive chemicals downstream contaminating

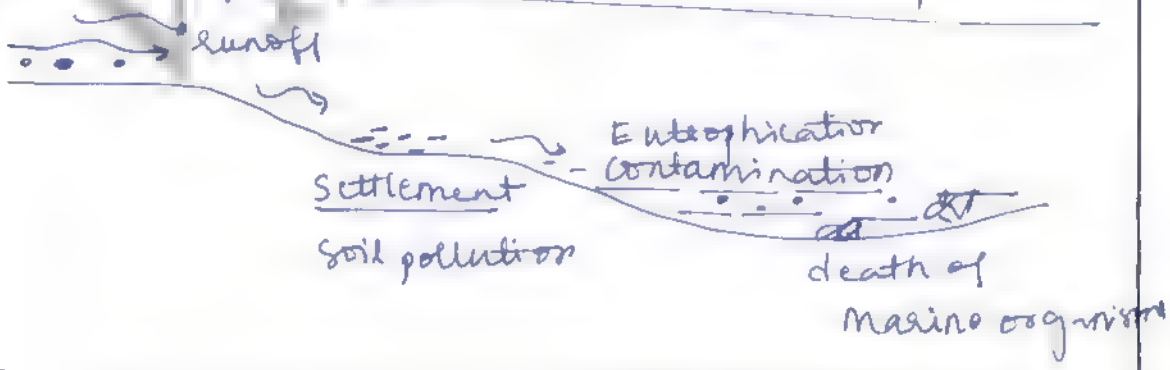
water bodies → Threatens life of people dependent on rivers as drinking water source

Biodiversity - that drinks water

2. Eutrophication : i.e : Increased nutrient content in ponds leads to algal bloom, increased biological oxygen demand

↳ Threatens marine life

3. Soil fertility further harmed → settlement of carried excess nutrient downstream destroys crops and soil fertility



Measures that Can be Taken to Mitigate Agricultural Runoff :

① Shift to Micro Irrigation from flood Irrigation

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उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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2. Fertilizer use based on the soil health
↳ Indiscriminate application should be prevented
↳ Nano Urea — 500ml of Nano Urea = 1 bag of Urea

3. Fertigation : Fertilizer + Micro Irrigation

4. Shift towards organic and Natural farming that discourages artificial use of chemical fertilizers

Steps Taken by Govt
- PM-Pranam (Discourages chemical fertilizer)
- PM-Krishi Sinchai Yojana
- Incentives towards Micro Irrigation
- National Mission on Organic Farming
- Parampargat Krishi Vikas Yojana.

The present need is to shift towards sustainable Agriculture - towards tackling pollution as well as impact of climate change

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16. हिमालयी राज्यों में पर्यटकों की बढ़ती संख्या ने उनके पारिस्थितिकीय समावेशन क्षमता को पार कर लिया है, जिसके कारण बड़े पैमाने पर मानव-जनित आपदाएं उत्पन्न हुई हैं। सधारणीय पर्यटन को बढ़ावा देते हुए ऐसी आपदाओं को रोकने के लिए क्या उपाय किए जा सकते हैं? प्रासंगिक उदाहरणों के साथ चर्चा कीजिए। (उत्तर 250 शब्दों में दीजिए)

The growing influx of tourists in Himalayan states has breached their ecological carrying capacity, leading to significant man-made disasters. What measures can be implemented to prevent such disasters while promoting sustainable tourism? Discuss with relevant examples. (Answer in 250 words) 15

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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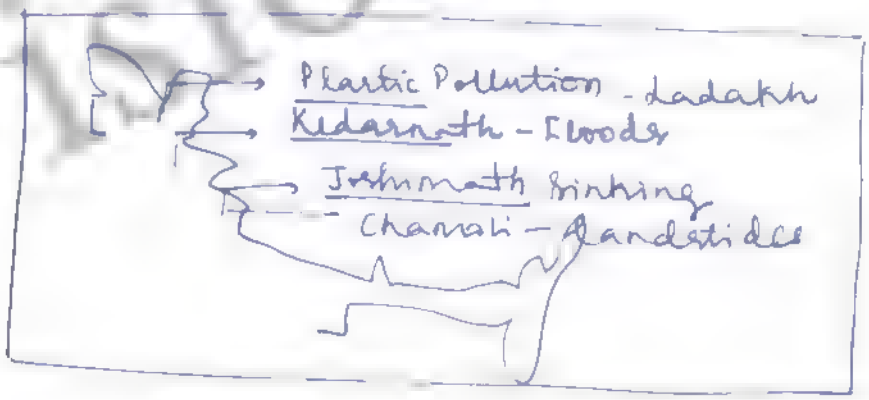
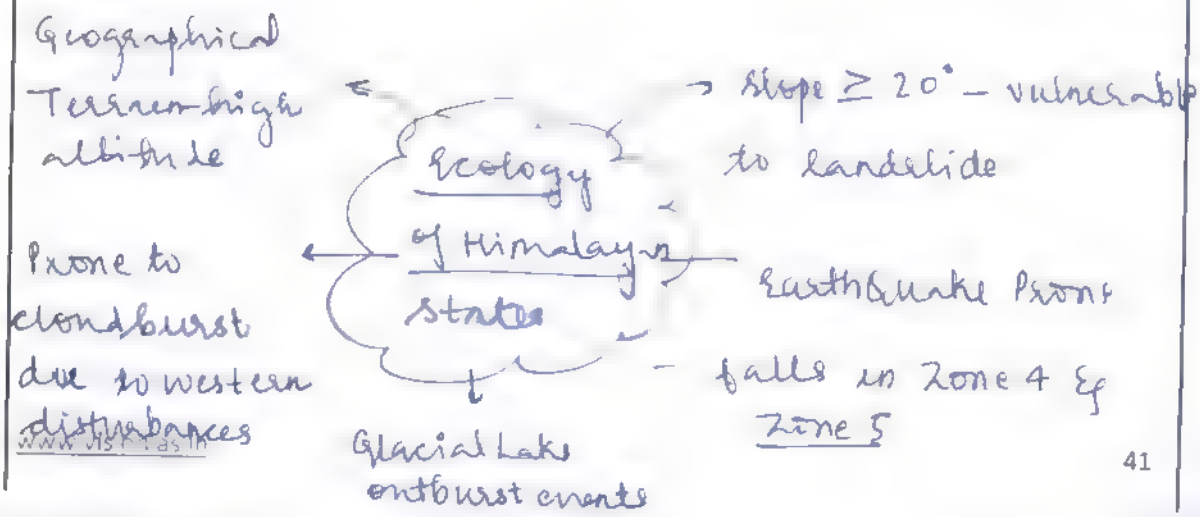
Himalayan states has attracted Tourists for its - religious destination (Kedarnath, Badrinath), scenic beauty (Munsoorie), adventure sports (rafting, bungee jumping); however the Tourist load in the present times has breached ecological carrying capacity.





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How Growing Influx → Man Made disasters

1. Chardham Project to exploit the religious tourism potential has altered the geomorphology
   - Eg. Joshimath, Kedarnath

2. Illegal Construction of Resorts in high slopes has increased load on subsurface
   - Eg. Joshimath - Land Sinking Case

3. Indiscriminate deforestation has increased the vulnerability to floods and landslides
   - Eg. Chamoli landslide case.

4. Plastic Pollution in the higher altitude of ladakh

5. Cutting and filling of slopes for large infraprojects → chances of earthquake, landslips
   - Eg. Silkyara Tunnel collapse.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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What Measures needs to be Implemented

1. Holistic and comprehensive - EIA - Environment Impact Assessment

2. Separate building code needs to be formulated for Himalayan states [Mishra committee recommendation]

3. Technological Advancements to reduce the impact on the ecology

4. Compensatory Afforestation - strict implementation within the state where infra projects are built.

'Ecology is the Permanent Economy'

- sustainable Tourism is the way forward - a Madhyamarga b/w tourism development and ecological protection is quintessential.

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए
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17. सुपरकंडक्टर्स विज्ञान एवं प्रौद्योगिकी के विभिन्न क्षेत्रकों में नवाचार को किस प्रकार बढ़ावा देते हैं? उदाहरण सहित स्पष्ट कीजिए। (उत्तर 250 शब्दों में दीजिए)

How do superconductors fuel innovation in diverse fields of science and technology? Illustrate with examples. (Answer in 250 words 15

उम्मीदवारों को इस क्षेत्र में नहीं लिखना चाहिए

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18. यद्यपि भारत में लगभग सभी प्रकार के बौद्धिक संपदा अधिकारों को कवर करने वाले कानून मौजूद हैं, फिर भी अनेक प्रवर्तन संबंधी, विनियामकिय और प्रशासनिक चुनौतियां भारत में बौद्धिक संपदा अधिकारों के व्यावसायीकरण में बाधा उत्पन्न करती हैं। सविस्तार वर्णन कीजिए। (उत्तर 250 शब्दों में दीजिए)

While India has laws covering almost all types of intellectual property rights, numerous enforcement, regulatory and administrative challenges hamper the commercialisation of IPRs in India. Elaborate. (Answer in 250 words) 15

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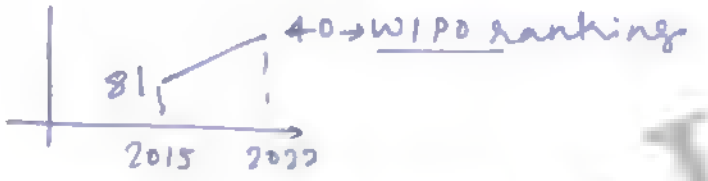
India has made rapid strides with regards to intellectual property rights as inferred from WIPO ranking.



Laws covering IPR
- Copyright Act
- Patents Act
- Trademarks Act
- GI Tag

However Numerous challenges hamper commercialisation of IPRs

1. Enforcement

- Reduced personnel in IPR department leading to delays and frustration

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2. Most manufacturing / development that happens in India - IPR is held by foreign nations

eg In defence manufacturing - most IPR is held by foreign agencies

II Regulatory challenges :-

1. Special Report 401 (USA) has put India in watchlist hinting at the regulatory challenges faced by in India

III Administrative challenges :

1. Delay in providing Patent >72 months ; while developed countries like China - USA <5 months

2. Very less support towards Innovation and creativity → discourages research personnel.

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Way Forward

- Investment in R&D to be increased (Presently ≃ 0.7% GDP)
- Way Forward / → Niti Aayog → 26 district innovation fund needs to be setup
- Encourage Private Investment
- Faster processing of Patents
- Capacity Building of IPR regulatory and monitoring institutions
- Awareness building ; Industria – Academia – Market linkage to harness the commercialisation potentially

A vibrant and robust IPR regime and regulation is quintessentially towards.

Innovation driven knowledge based economy as espoused by Honble PM –

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19. एकीकृत थियेटर कमान का निर्माण करने में सामना की जाने वाली चुनौतियों को ध्यान में रखते हुए, परीक्षण कीजिए कि कमानों का थिएटराइजेशन किस प्रकार तीनों सेनाओं के बीच जनशक्ति और समाधनो के बेहतर एकीकरण और युक्तिकरण को बढ़ावा दे सकता है। (उत्तर 250 शब्दों में दीजिए)

Keeping in view the challenges in creating integrated theatre commands, examine how the theaterisation of commands can lead to greater integration and rationalisation of manpower and resources among the three services. (Answer in 250 words) 15

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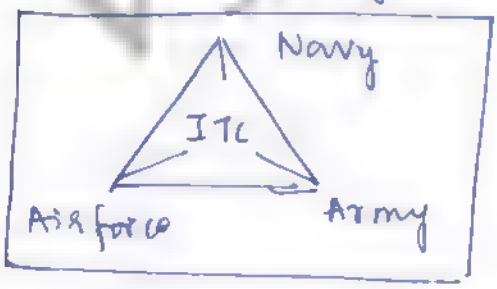
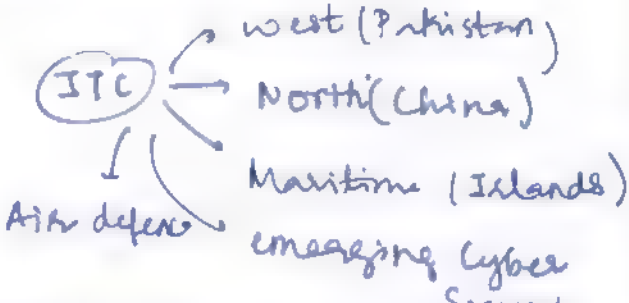
Integrated Theatre Commands

proposal was made by Kargil Review Committee as well as by Shekatkar Committee in India.

Integrated Theatre command (ITC

↳ entails ~~the~~ idea of Integrating various individual commands (Navy, Airforce, army) under one Head





Challenges in Creating Integrated Command

1. Defining the contours of control of all 3 commands

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2. Determining the heirarchy and line of communication

↳ For eg: So far we have independent heirarchy and ranks for each command/

3. Air Force is skeptical - that it resources and control will be usurped by the Army.

4. Acceptance of all three forces to come together is a difficult task

Nevertheless - The tension can lead to greater integration and rationalization in the following ways:-

1. Reduce the future cost of war by Integrated Purchase

eg. Time delay b/w Air Force and Army had increased the cost of procurement - APACHE Helicopters

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2. Specialised Training based on the location of the Theatre

eg. Maritime / Island Command — maritime prowess / navigation / counter attack from air + water

3. Faster Counter Attack can be launched when all three are under single command

↳ Better security - reduced damage to critical Infra.

4. Accomodates the need of current times (CDS)

- China's dominance - string of pearls
- Asymmetry and Grey zone warfare in geopolitics

Steps already taken
- → ITC in Andaman-Nicobar Islands.
- → Inter services Act (2023)
- → creation of the post of CDS

Moving forward - catalysed steps towards faster formulation of Integrated Theater Command along with drafting national security strategy is indispensable

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20. सीमावर्ती गांवों को न केवल भौगोलिक दृष्टि से बल्कि सुविधाओं के मामले में भी प्रथम गांव मानना, सीमा सुरक्षा बढ़ाने की एक प्रमुख रणनीति हो सकती है। विवेचना कीजिए। साथ ही, इस संबंध में सरकार द्वारा किए जा रहे उपायों पर भी प्रकाश डालिए। (उत्तर 250 शब्दों में दीजिए)

Treating border villages as first villages not just geographically but also in terms of facilities can be a key strategy for enhancing border security. Discuss. Also, highlight the measures being taken by the government in this regard. (Answer in 250 words) 15

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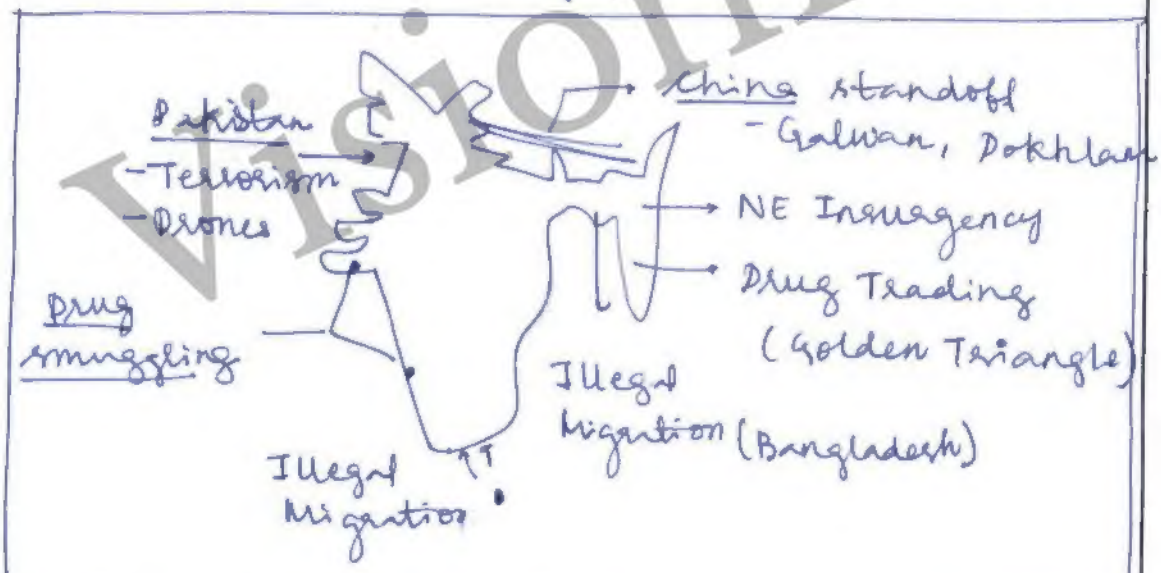
Recently Hon'ble PM regarded the border villages as the 'GATEWAYS' —

- first villages of the country and not last
- highlighting the central role played by border villages in addressing the security realm of the country.



challenges: along India's Border

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How Treating Border Villages Facilities → Key towards enhancing Border Security

(1) Border development
- → employment
- → economic development
- → better socio economic conditi

discourages youth from joining extremist/ insurgent forces ←

(2) Technological Facilities along Borders

smart borders
- → Facial recognition
- → AI
- → sensors/radars

⇓

Reduce illegal migration, arms smuggling, cross-border drones

(3) Facilities - Personnel → capacity building
→ Training, modern arms and ammunition
greater deployment

(4) Infra Facilities (along North border)
facilitates faster mobilisation of troops.

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Measures being Taken

Measures Taken

- Border Area Development Programme
- Vibrant Villages Program – along Borders – China
- Separate Border Security Forces
  - Assam Rifles – Myanmar
  - BSF – Pakistan
- CIBAMS
  - smart borders
  - fencing
- Addressing development deficit
  - UNNATI – North East
  - UDAN, Nai Manzil – J&K
- Infrastructure development along Borders – Char Dham
- Strategic road connectivity towards northern borders

Way Forward

- Kargil Review Committee
  - One Border one Force – border security force should not be divested to Counter Insurgency
- Madhukar Gupta: Modernise the Border Forces
- Shekatkar
  - Linear should be replaced by grid network – towards faster mobilisation

Security of Borders is indispensible towards Sovereignity – Integrity – Unity of the country

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